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Hamilton Test Systems, Inc, Phoenix, AZ

Prepared for

Environmental Protection Agency, Ann Arbor, MI Emission Control Technology Div

Jul 79

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Motor Vehicle Emission Lab
2565 Plymouth Rd.
Ann Arbor, Michigan 48105

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An exhaust emissions test program was conducted in Portland, Oregon on a sample of 292 privately-owned automobiles of 1975-77 model years. The objective of the program was to study the short-term emissions performance of cars that passed the mandatory Oregon emission inspection, in order to determine reasons for short-term emission control deterioration and ways to prevent it.

Cars were recruited at the time they were due for inspection, tested in as-received condition and then at one, two, or three-month intervals. Cars failing the inspection were returned to the owners for repairs, then retested after passing the state inspection, and again after the one-to three-month interval. Cars showing significant emissions increases at that point were tuned to manufacturer's specifications by HTS and retested twice: immediately and after one month.

Tests included the state idle test, the FTP, the Federal 3-mode test, and the Highway Fuel Economy Test. Complete engine diagnostic checks and owner interviews regarding maintenance and driveability were also conducted.

Emissions and fuel economy data are presented for all tests.

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POST - I/M DETERIORATION STUDY

by

Hamilton Test Systems, Incorporated
2303 East Thomas Road
Phoenix, Arizona 85016

Contract No. 68-03-2513
EPA Project Officer: H. Anthony Ashby

Prepared for

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Mobile Source Air Pollution Control
Emission Control Technology Division
Ann Arbor, Michigan 48105

July 1979

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Publication No. EPA-460/3-79-009

ABSTRACT

An exhaust emissions study was conducted on 292 1975-77 model year vehicles recruited from private owners in the Portland, Oregon metropolitan area.

The purpose of the study was to collect data that could be used to determine the cause of increases of exhaust emission levels over short periods of time.

The fleet of vehicles selected were representative of the Oregon automobile population of the model years tested. All vehicles in the program were subjected to the vehicle inspection conducted by the State of Oregon Department of Environmental Quality (DEQ).

Each vehicle in the program was initially tested in as-received condition and then retested after an interval of one to three months. Vehicles which failed the DEQ test were also tested after maintenance (owner's responsibility) sufficient to enable them to pass the state inspection. Any vehicle which exhibited significant increases in exhaust emissions during the retest was, with the owner's permission, adjusted by HTS to the manufacturer's specification (limited to a minor tune-up) and again tested. These vehicles which showed a deterioration were retested one month after the tune-up.

The test sequences included idle-mode tests, Federal Three-Mode Test, Federal Test Procedure, and the Highway Fuel Economy Test in addition to the DEQ state inspection test. Each test sequence also included a complete diagnostic inspection and owner review regarding vehicle maintenance.

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1-1
2.0	SUMMARY	2-1
3.0	PROGRAM OBJECTIVE	3-1
4.0	PROGRAM DESIGN	4-1
4.1	VEHICLE SELECTION	4-4
4.2	VEHICLE RECRUITMENT	4-9
4.3	FACILITIES AND EQUIPMENT	4-13
4.3.1	State Inspection Station Facility	4-13
4.3.2	Hamilton Test System Facility	4-13
4.3.3	Constant Volume Sampler (CVS)	4-15
4.3.4	Chassis Dynamometer	4-15
4.3.5	Exhaust Gas Analysis Console	4-16
4.3.6	Computer System	4-17
4.3.7	Miscellaneous Equipment	4-17
4.4	EQUIPMENT QUALIFICATION AND CALIBRATION	4-19
4.4.1	Constant Volume Sampler (CVS)	4-19
4.4.2	Analytical Instrumentation	4-20
4.4.3	Dynamometer	4-21
4.4.4	Garage Analyzer Checks	4-23
4.4.5	Equipment Logs	4-24
4.5	TEST PROCEDURES	4-25
4.5.1	Idle Inspection Test	4-25
4.5.2	Diagnostic Check	4-26

4.5.3	Vehicle FTP Preparation	4-26
4.5.4	Federal Test Procedure	4-26
4.5.5	Federal Three-Mode Test	4-30
4.5.6	Highway Fuel Economy Test (HFET)	4-32
4.6	DATA HANDLING & QUALITY CONTROL	4-33
4.6.1	Manual Data Handling	4-33
4.6.2	Emissions Data Handling	4-40
4.6.3	Vehicle Identification Data	4-45
4.6.4	Mass Emissions and Fuel Economy Calculation	4-45
5.0	TEST RESULTS	5-1
6.0	APPENDICES	6-1

LIST OF FIGURES

Figure Number	Title	Page
4.2-1	Introductory Letter	4-10
4.2-2	Return Mailer	4-11
4.5-1	Diagnostic Inspection form	4-27
4.5-2	Autosense Vehicle Report	4-29
4.6-1	Data Handling Flow Chart	4-34
4.6-2	Vehicle Owner Questionnaire	4-35
4.6-3	Vehicle Summary Sheet	4-38
4.6-4	Vehicle Maintenance Record	4-39
4.6-5	Emissions Data Sheets	4-41
4.6-6	Raw Inputs	4-43
4.6-7	Mass Emission Data Summary	4-44

LIST OF TABLES

Table Number	Title	Page
4.1-1	Cell Identification and HP settings	4-5
4.5-1	Shift Points	4-31
5.0-1	DEQ Standards & Enforcement Tolerances for Element III Vehicles	5-3
5.0-2	Cell vs. EPA Number Cross Reference	5-4

1.0 INTRODUCTION

The U. S. Environmental Protection Agency (EPA), by authority provided by the Clean Air Act, is responsible for the control and prevention of air pollution. One of the major sources of air pollution is the motor vehicle, and EPA has developed new-vehicle emission standards and other strategies for reducing the amount of pollution from this source.

One method of reducing air pollution is to adopt at the state level inspection and maintenance programs for in-use vehicles. Inspection/ Maintenance (I/M) may be defined as a strategy to 1) identify in-use motor vehicles which are gross polluters, that is, which emit pollutants at rates several times the applicable Federal standards; and 2) cause them to be adjusted or repaired so that pollutant emission rates are reduced to levels that approach the standards. The technique requires periodic inspection of most or all vehicles in an area. Only those which fail the inspection must be repaired.

The concept of Inspection/Maintenance is based on the fact that properly equipped (emission controls) and properly tuned motor vehicles emit less pollutants than improperly tuned vehicles and/or those with defective or missing emission control equipment. The challenge is to identify the latter and cause them to be repaired.

To date, all states with active I/M programs use (pass/fail) standards which are set to be no more stringent than the emissions levels that would exist if a vehicle were tuned to manufacturer's specifications. Typically, there

are families of standards which are sensitive to vehicle make, model, engine size and age. For example, older pre-emission control vehicles do not have to meet the same standards as newer vehicles. Standards are established for emissions of carbon monoxide and hydrocarbons, and in some areas, for oxides of nitrogen (NO_x).

Typically, state I/M programs consist of short inspection tests which rapidly and economically test a vehicle and provide reasonably accurate emission results. The EPA has the responsibility for determining the degree of effectiveness of inspection tests and resultant maintenance on the emissions of the in-use vehicle fleet. A strong corollary to this requirement is the determination of the deterioration of the emissions of the in-use fleet after inspection and maintenance.

As part of the effort to determine the deterioration effects after inspection and maintenance, Contract No. 68-03-2513 (Element III) was awarded Hamilton Test Systems, Incorporated (HTS) to perform a series of emission tests including a number of short tests and the Federal Test Procedures. The EPA prescribed the vehicles to be tested, the test procedures, and the methods of processing the data. No indepth analysis or interpretation of test results was included in the Contract. This report describes the tests conducted and presents the data obtained under Contract No. 68-03-2513 (Element III).

2.0 SUMMARY

The intention of the Element III test program was to collect exhaust emissions data from in-use vehicles that are subject to a mandatory I/M program. These data could then be used to evaluate the extent, degree and possible cause of emission deterioration within short periods of time after I/M had been performed.

In order to gather the desired information. the EPA awarded a contract to HTS to test several hundred cars in Portland, Oregon, where the State of Oregon Department of Environmental Quality (DEQ) has been operating a mandatory I/M program since 1975.

To satisfy the requirements of Contract No. 68-03-2513, HTS established a complete emissions test laboratory within three miles of the DEQ Vehicle Inspection Station on St. Helens Road in Portland, Oregon. The Laboratory consists of two chassis dynamometer test cells with constant-volume sampling (CVS) equipment adjacent to a controlled temperature (soak) area with a capacity for up to 24 vehicles. Fuel tanks (including a 10,000 gallon Indolene underground tank), computers, office facilities, gas-bottle facilities, meteorology equipment and automotive diagnostic equipment were also included as part of the Laboratory.

EPA's test program called for 292 privately-owned cars to be recruited for testing. The fleet was based on providing a mix that would represent the Oregon automobile population for the model years 1975-77, but with sample sizes limited to five minimum, nine maximum.

The cars were recruited from private owners in the Portland area. To the greatest extent possible the cars were recruited at the time they were actually due for the biennial DEQ inspection. The owners were contacted by mail and telephone to arrange the loan of their cars for two to three days for testing. As incentives for participation the owners were given a loaner car and savings bonds, and their cars were returned to them with a full tank of gasoline.

Initially all vehicles were driven to the DEQ station where they were subjected to the DEQ inspection, which includes an idle emissions test (referred to as the SIT in this report).

Following the DEQ inspection the vehicles were returned to the HTS laboratory for the following sequence of operations:

1.) Repeat SIT
2.) Complete engine diagnostic inspection
3.) Preconditioning for the 1975 Federal Test Procedure (75 FTP)
4.) 75 FTP
5.) Federal Three-Mode Test (F3M)
6.) Highway Fuel Economy Test (HFET)

The fail cars were returned to their owners with the request to obtain the repairs that would enable the car to pass the DEQ inspection. Repairs were entirely the responsibility of the owner's however, an additional incentive of $5.00 was given to the owner if he provided a copy of the repair bill. Following repairs, the vehicles were brought back to HTS for further testing. Each vehicle was again subjected to the DEQ inspection to ensure that the vehicle passed. If a vehicle still failed, it was returned to the owner for further repairs. After passing the DEQ inspection, each vehicle was subjected to steps 1 through 6 shown in the above test sequence.

All vehicles were then retested after an interval of one to three months. The test sequencing consisted of a repeat of the DEQ inspection and the six steps conducted at the HTS facility. The results were then compared by EPA with the previous results to determine if significant deterioration in emissions had occurred. If significant deterioration had occurred, EPA conducted an interview with the participant to possibly establish the reason for the deterioration. With the owner's consent, the vehicle was then adjusted to manufacturer's specification (limited to a minor tune-up) and again retested. The retest sequence consisting of the DEQ inspection and the six specified steps. A final retest was conducted one month later on these selected vehicles in the same manner as during the other retests.

All data were collected in Vehicle Test Packets and submitted to the EPA Project Officer. The data were also transcribed onto flexible discs (a magnetic medium) and transmitted to EPA computer files via telephone.

This report contains the results for each test of each vehicle. No conclusions from or interpretations of the data are reported as none were called for in the Contract.

3.0 PROGRAM OBJECTIVE

The objective of the Element III program was to gather vehicle emissions data to evaluate deterioration effects of exhaust emissions over short periods of time. The deterioration effects were to be determined by measuring the exhaust emissions after inspection and maintenance, measuring the exhaust emissions after a specific time interval, and comparing the results of the two test sequences. The time intervals selected were one month, two months, and three months. To assist in determining the cause of the deterioration, vehicles which exhibited significant deterioration in exhaust emissions were adjusted to manufacturer's specification, tested and then retested after one month. The vehicles for the Element III program were selected from model years 1975-77.

4.0 PROGRAM DESIGN

The Element III program was designed to conduct emission tests on 292 in-use 1975-77 model year passenger vehicles. The vehicles were registered within the Portland Metropolitan Service District and were therefore subject to the DEQ vehicle inspection program.

The composition of the Element III fleet was to be a representative sample of the Oregon vehicle population of automobiles for the model years 1975-77. Fifty-four different vehicle groups consisting of between 5 and 9 vehicles each were defined by EPA to represent the bulk of 1975 through 1977 model year sales in the Federal (49-state) market.

The criteria by which the 54 groups were defined included:

- wide coverage of vehicles/engines
- quantities produced
- likelihood of future production
- availability/recruitability in the Portland area

The deterioration effects on exhaust emissions were to be evaluated over three time periods. One-third of the fleet was to be retested nominally one month after passing the DEQ inspection, one-third to be retested two months after the initial test, and one-third to be retested after three months. The mix of vehicles for the three different time periods was similar with one to three vehicles selected for each of the 54 groups.

Each vehicle recruited was first subjected to the DEQ inspection at the St. Helens Road station. In this inspection exhaust HC, CO and CO_2 are measured at idle, idle speed is measured, and a visual inspection is made for exhaust smoke and proper installation of all emission control components.

Upon completion of the testing at the DEQ station, the vehicle was then driven to the HTS facility where the State Idle Test for HC and CO, and a NO_x measurement, was performed. The vehicle then received a complete engine diagnostic check. The vehicle was then preconditioned for the Federal Test Procedure (FTP), and after the required soak period, the FTP, the Federal Three-Mode Test (F3M) and the Highway Fuel Economy Test (HFET) were performed.

An additional testing sequence was performed on all vehicles which failed the DEQ inspection, after maintenance had been performed by the owner which enabled the vehicle to pass the inspection. Typically this was after approximately two weeks. At the HTS facility the Idle test was performed along with another complete diagnostic test. Following preconditioning, the FTP, F3M and HFET tests were repeated.

All vehicles were retested if attainable, after a period of 1 to 3 months. The sequence of tests included a repeat of the State Idle Test at the DEQ station and the Idle test, diagnostic check, pre-

conditioning, and the FTP, F3M and HFET tests at the HTS facility.

Any vehicle which exhibited a significant increase in exhaust emissions during the retest as determined by EPA was subjected to further evaluation and testing. An EPA representative conducted an interview with the participant to determine the reason for the deterioration (e.g. the participant had the vehicle readjusted because of driveability problems). With the permission of the participant, the vehicle was then readjusted to manufacturer's specification by a HTS mechanic. This readjustment was limited by design to a minor tune-up which consisted of, if necessary, adjustments of choke setting, idle speed, basic ignition timing, and idle mixture, and the replacement of the air filter. Upon completion of the readjustment the vehicle was then retested at the DEQ station followed by the Idle test, diagnostic check, preconditioning, and the FTP, F3M and HFET tests at the HTS facility. After one month any vehicle which had been subjected to this deterioration testing sequence was again retested per the testing described for the retest.

Upon completion of each test sequence and prior to returning the vehicle to the owner, one spark plug was checked for rust-colored deposits caused by the antiknock additive Methylcyclopentadienyl Manganese Tricarbonyl (MMT).

4.1 VEHICLE SELECTION

The fleet selection for the Element III program was intended to provide a representative sample of the Oregon automobile population of 1975-77 model years. EPA selected 54 different groups (Cells) utilizing the Oregon Motor Vehicles Division registration information. The matrix of vehicles selected for the Element III program is shown on Table 4.1-1.

As a design requirement of the program all vehicles were to be selected on the basis that they were due for registration renewal which requires a DEQ inspection and that they had not already been inspected. However, since the State of Oregon registration renewal is biennial, only the 1975 and 1977 vehicles were required to be registered in 1979; therefore, the 1976 vehicles selected were waived from this requirement.

Table 4.1-1 (Sheet 1 of 4)

CELL IDENTIFICATION & HP SETTINGS

CELL NO	QTY.	MODEL YEAR(S)	MAKE / MODEL	ENGINE / CARB	WEIGHT CLASS	TRANS	"ACTUAL HP SETTINGS" FTP 50 MPH	F3M 52 MPH	F3M 25 MPH
01	5	1975	AMC/Hornet, Pacer	232, 258 - 1V	3000	A	11.3	14.5	6.5
03	6	1975	Audi/Fox, Fox Wagon	97 - FI	2500	M	11.3	14.5	6.5
03		1977	VW/Dasher	97 - FI	2500	M	8.0	11.0	5.5
04	5	1975 - 1977	Honda/Civic	76 - 2V	2000	M	8.3	10.5	4.5
05	5	1975 - 1977	Honda/Civic, CVCC	91 - 3V	2000	M	8.3	10.5	4.5
06	5	1977	Dodge, Plymouth/Colt, Arrow	98 - 2V	2500	M	9.4	12.0	5.5
06		1977	Dodge, Plymouth/Colt, Arrow	121 - 2V	2750	M	9.9	13.5	6.0
07	9	1975	Datsun/B210	85 - 2V	2250	M	8.8	12.0	5.0
08	5	1977	Datsun/B210	85 - 2V	2250	M	8.8	12.0	5.0
09	9	1975	Toyota/Corolla, Corolla Wagon	97 - 2V	2500	M	9.4	12.0	5.5
10	5	1977	Toyota/Celica	133 - 2V	2750	M	7.7	11.5	6.0
11	5	1975 - 1977	VW/Beetle	97 - FI	2250	M	8.8	12.0	5.0
12	8	1977	VW/Rabbit, Scirocco	97 - 1V	2250	M	7.3	10.0	5.0
13	5	1977	Volvo/240	130 - FI	3500	M	11.2	15.5	7.5
14	5	1975	Dodge, Plymouth/Dart, Valiant	225 - 1V	3500	A	12.3	16.0	7.5
15	5	1976	Dodge, Plymouth/Valiant, Volare	225 - 1V	4000	A	13.2	18.0	8.5

Table 4.1-1 (Sheet 2 of 4)

CELL IDENTIFICATION & HP SETTINGS

CELL NO	QTY.	MODEL YEAR(S)	MAKE / MODEL	ENGINE / CARB	WEIGHT CLASS	TRANS	"ACTUAL HP SETTINGS" FTP 50 MPH	F3M 52 MPH	F3M 25 MPH
16	5	1977	Plymouth/Volare	225 - 2V	4000	A	13.2	18.0	8.5
17	5	1975	Dodge, Ply/Coronet, Fury	318 - 2V	4500	A	14.0	19.5	9.5
18	5	1976	Plymouth/Volare	318 - 2V	4000	A	13.2	18.0	8.5
19	5	1977	Dodge, Ply/Aspen, Volare	318 - 2V	4000	A	13.2	18.0	8.5
20	5	1975	Chrys, Dodge, Ply/Cordoba, Coronet, Fury	360 - 2V	4500	A	14.0	19.5	9.5
22	5	1975	Ford/Pinto, Mustang II	140 - 2V	3000	A/M	10.3	13.5	6.5
24	6	1976	Ford/Pinto, Mustang II	140 - 2V	3000	A/M	10.3	13.5	6.5
26	5	1977	Ford/Pinto, Mustang II	140 - 2V	3000	A/M	10.3	13.5	6.5
28	5	1975	Ford/Pinto, Mustang II	171 - 2V	3500	A	11.2	15.5	7.5
29	8	1975, 1976	Ford/Maverick, Granada	250 - 1V	4000	A	13.2	18.0	8.5
30	7	1975	Ford, Merc/Maverick, Granada, Monarch	302 - 2V	4000	A	13.2	18.0	8.5
31	5	1975, 1976	Ford, Merc/Torino, Montego, Gran Torino	351 - 2V	4500	A	14.0	19.5	9.5
32	5	1975, 1976	Ford/Elite, LTD	351 - 2V	5000	A	14.7	21.5	10.5
33	5	1975	Ford/Elite, LTD	400 - 2V	5000	A	14.7	21.5	10.5

Table 4.1-1 (Sheet 3 of 4)

CELL IDENTIFICATION & HP SETTINGS

CELL NO	QTY.	MODEL YEAR(S)	MAKE / MODEL	ENGINE / CARB	WEIGHT CLASS	TRANS	"ACTUAL HP SETTINGS" FTP 50 MPH	F3M 52 MPH	F3M 25 MPH
34	5	1977	Ford, Merc/Maverick, Granada, Monarch	250 - 1V	4000	A	13.2	18.0	8.5
35	5	1977	Ford, Merc/Maverick, Granada, Monarch	302 - 2V	4000	A	13.2	18.0	8.5
36	5	1977	Ford/T-Bird, LTD-II	351 - 2V	4500	A	12.0	18.0	9.5
38	5	1977	Ford/T-Bird, LTD-II, Ford Wagon	400 - 2V	5000	A	14.7	21.5	10.5
39	5	1975	Chev/Vega	140 - 2V	3000	A/M	10.3	13.5	6.5
41	5	1975	Chev/Nova	250 - 1V	4000	A	13.2	18.0	8.5
42	7	1975	Chev/Malibu, Camaro, Monte Carlo	350 - 2V	4500	A	14.0	19.5	9.5
43	5	1975	Chev/Impala	350 - 2V	5000	A	14.7	21.5	10.5
44	5	1976	Chev/Nova	305 - 2V	4000	A	13.2	18.0	8.5
45	5	1976	Chev/Malibu, Monte Carlo, Laguna	305 - 2V	4500	A	14.0	19.5	9.5
46	5	1976, 1977	Chev/Chevette	85, 98 - 1V	2250	A/M	8.8	12.0	5.0
48	5	1975	Pont/Catalina, Grand Prix, Bonneville	400 - 2V	4500	A	14.0	19.5	9.5
49	5	1975	Buick, Olds/Cutlass Supreme, LeSabre	350 - 4V	5000	A	14.7	21.5	10.5
50	5	1975	Pont, Olds, Buick/Electra, Custom Cruiser, Bonneville, Grand Ville	455 - 4V	5500	A	15.3	22.5	11.5
51	5	1975	Buick/Apollo	231 - 2V	4000	A	13.2	18.0	8.5

Table 4.1-1 (Sheet 4 of 4)

CELL IDENTIFICATION & HP SETTINGS

CELL NO	QTY.	MODEL YEAR(S)	MAKE / MODEL	ENGINE / CARB	WEIGHT CLASS	TRANS	"ACTUAL HP SETTINGS" FTP 50 MPH	F3M 52 MPH	F3M 25 MPH
52 } 52	5	1976 / 1977	Cadillac/Seville	350 - FI	4500	A	14.0	19.5	9.5
54	5	1977	Chev/Camaro, Nova	350 - FI	4500	A	10.1	16.5	9.5
55	7	1977	Chev/Malibu, Monte Carlo, Caprice, Impala	250 - 1V	4000	A	10.3	15.5	8.5
56	5	1977	Chev/Monte Carlo, Impala	305 - 2V	4000	A	11.3	16.5	8.5
57	5	1977	Pont/Grand Prix, Catalina	350 - 4V	4000	A	11.3	16.5	8.5
58	5	1977	Olds, Buick/Delta 88, Electra, Olds 98	301 - 2V	4500	A	10.8	17.0	9.5
59	5	1977	Olds, Buick/Cutlass, Century, Regal	403 - 4V	4500	A	11.8	18.0	9.5
60	5	1977	Olds/Cutlass Supreme	231 - 2V	4000	A	11.3	16.5	8.5
61	5	1975	Toyota/Corona	350 - 4V	4500	A	10.8	17.0	9.5
62	5	1977	Toyota/Corona	133 - 2V	3000	M	10.3	13.5	6.5
63	5	1975	Cadillac/DeVille	133 - 2V	3000	M	10.3	13.5	6.5
				500 - 4V	5500	A	15.3	22.5	11.5

4.2 VEHICLE RECRUITMENT

The initial contact with a prospective participant was via an introductory letter and return mailer. A copy of each is shown (Figures 4.2-1 and 4.2-2). As an incentive to aid in the recruitment every participant received for each sequence of tests a $50.00 (face value) United States Savings Bond, a current model loan vehicle, and a full tank of gas upon return of his vehicle. The loan fleet consisted of Cadillacs, Monte Carlos, Granadas, Monarchs, Cutlasses, Camaros, Firebirds, Impalas, and Caprices. As an additional incentive each participant was given the DEQ Certificate of Compliance free (cost $5.00) upon successfully passing the DEQ inspection and $5.00 for copies of repair bills incurred during the owner's participation in the program providing that the repair pertained to emission control.

All participants were interviewed before testing was initiated on their vehicles. Upon arrival at the HTS office the vehicle was inspected to assure that there were no apparent exhaust leaks or other defects which would make the vehicle unfit for testing. Upon determination that the vehicle was acceptable, the participant was asked to provide vehicle usage and maintenance information necessary to complete an EPA questionnaire.

For the retest sequences, the vehicle was again inspected to be sure it was fit for testing and the participant provided information

HAMILTON TEST SYSTEMS

P. O. Box 10718 • Portland, Oregon 97210

Dear Automobile Owner:

Your car is one of a very few in this area being considered for a special test program sponsored by the U.S. Environmental Protection Agency (EPA) in cooperation with the Oregon Department of Environmental Quality. This program consists of performing tests on automobiles to measure their exhaust emissions and is being conducted under contract to the EPA by Hamilton Test Systems.

If your car is chosen, you will be asked to loan your car to us for a couple of days two to three times over the next three months. In return you will receive up to $150.00 in U.S. Savings Bonds, free use of a late model loan car, and your car will be returned to you with a full tank of gas upon completion of each test.

You will be contacted by telephone in the next few days to determine your interest in volunteering for this special project. The person calling will explain how the program works and the benefits you will receive if your car is selected. In the meantime, you can help us by filling out the enclosed pre-paid postcard for our information.

Sincerely,

David A. Smith

David A. Smith
Project Director

Figure 4.2-1

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best available copy.

☐ I have a listed telephone. In addition to my listed phone, I can be reached at

_____

☐ I am interested in the special inspection program but have no telephone or an unlisted telephone. Please contact me at _____

_____

☐ I do not wish to be considered for the special inspection program. Please do not contact me.

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Figure 4.2-2

necessary to complete a maintenance questionnaire.

The required 292 vehicles were recruited with 16 dropping out of the program prior to completing all the required test sequences.

4.3 FACILITIES AND EQUIPMENT

4.3.1 DEQ Vehicle Inspection Station

The DEQ inspection station used in the program was located at 4621 N.W. St. Helens Road. The Idle Test was performed in the normal inspection lanes.

4.3.2 Hamilton Test Systems Facility

The HTS facility was located at 1421 N.W. 14th Avenue. The facility contained 15,000 square feet of useable laboratory space and 3,000 square feet of office space. The laboratory contained a soak area, a CVS test area, a diagnostic area, and a vehicle fueling area.

4.3.2.1 Office Area

This area was used for the functions of vehicle recruitment and participant interviewing, quality control and data processing, and general office management.

4.3.2.2 Test Vehicle Soak Area

An area for storing or "cold soaking" up to twenty-five vehicles was provided. The temperature within this area was maintained between 20° - 30° C (68° - 86° F) and was continuously monitored by chart recorders when any vehicle was in soak.

4.3.2.3 CVS Test Area

The CVS test area contained two completely independent sets of CVS equipment. Each set consisted of a dynamometer, sample system, and

an analytical system. An enclosure within this area was used to store all the calibration and working gases.

4.3.2.4 Ventilation and Exhaust Considerations

The facility ventilation and exhaust system was designed to minimize the HC and CO background levels within the laboratory. Each test cell contained a 5,000 cfm exhaust fan and this coupled with two 6,000 cfm intake fans maintained good ventilation for each of the cells. All vehicle exhaust was directly vented to the outside. The final result was the achievement of background levels of less than 10 ppm of HC and CO, as required by the contract.

4.3.2.5 Diagnostic Test Area

The diagnostic area provided space for testing two vehicles. The area was isolated from the rest of the laboratory and was not temperature controlled. Two Autosense Diagnostic Systems and one EPA-furnished NO_x analyzer were located in this area for the performance of the Idle Test and the required diagnostic checks.

4.3.2.6 Fuel Area

A 10,000 gallon in-ground tank was used for storing the Indolene test fuel. The fuel was disbursed and metered by a standard gas pump. Two separate 250 gallon in-ground storage tanks were used for draining and post-test fillups. One tank was dedicated for unleaded fuel and the other for recovery of either regular or premium fuel.

4.3.3 Constant Volume Sampler (CVS)

The Constant Volume Samplers were Critical Flow Venturi (CFV) systems manufactured by Horiba Instruments (Model CVS 20). The significant design improvements of this type of system over conventional CVS concepts are the use of the Critical Flow Venturi for metering the dilute exhaust and the elimination of the trouble-prone positive-displacement pump. Major features of the CFV CVS are the use of an efficient, low-maintenance, turbo-compressor to generate the gas flow, the use of cyclonic separator to remove particulates from the dilute exhaust and to insure complete mixing of exhaust and dilution air, and elimination of the need for dilute exhaust temperature control by using a critical flow orifice sampling probe.

The CVS system utilized a six bag (three sample and three background) design. The bags were approximately four cu ft and were manufactured by Custom Engineering.

4.3.4 Chassis Dynamometer

A Clayton model ECE-50 dynamometer was installed in each cell. To simulate vehicle weight a Clayton direct drive variable inertia flywheel assembly was attached to each dynamometer. Vehicle weights of 1750 through 5500 lbs. could be simulated. The dynamometers were flush mounted in the floor. In the interest of improved accuracy the Clayton speed and torque meters, which were of the mechanical meter movement type, were replaced with Weston 2462 digital voltmeters calibrated to read mph and lb-ft. To restrict forward movement of the

vehicle, wheel chocks were placed in front of the front wheels and a hand-operated winch was tied from the rear of the vehicle to the floor. Side-to-side movement of front wheel drive cars was restricted by chains connected from the front of the vehicle to special eyebolts mounted in the dynamometer chassis.

4.3.5 Exhaust Gas Analysis Console

The two analysis consoles were built per the contract specifications by Horiba Instruments. Provisions for undiluted as well as diluted measurements were made. To reduce water vapor in the undiluted analysis system a refrigerated bath water extractor was installed in each console. In order to eliminate hydrocarbon hang-up problems, a separate flame ionization detector (FID) hydrocarbon analyzer was used for undiluted sample measurements. Stainless steel and Teflon plumbing were used exclusively throughout the entire console and all pertinent sample pump parts were Teflon coated.

The major analysis components within the console were as follows:

Analyzer	Components Measured	Ranges
Horiba AlA-21AS	CO (diluted)	100 & 500 ppm
Horiba AlA-21	CO (diluted & undiluted)	0.3%, 1%, 3%, 10%
Horiba AlA-21	CO_2 (diluted)	4%, 8%
Horiba FlA-21	HC (diluted)	50, 100, 300, 1000, 3000, & 10,000 ppm
Horiba FlA-21	HC (undiluted)	3000 & 10,000 ppm
Thermo-Electron Corp. Model 44	NO_x (diluted & undiluted)	100, 250, 1000 & 2500 ppm

The CO and CO_2 analyzers were Non-Dispersive Infrared (NDIR), the HC analyzers were Flame Ionization Detectors (FID), and the NO_x analyzer was a chemiluminescence instrument.

Each system also incorporated two 2-pen chart recorders to provide a permanent record of calibrations and analysis. One system used Texas Instruments Servowriter II recorders and on the other system Soltec recorders.

4.3.6 Computer System

Each of the two cells utilized a Hewlett Packard 2100 series computer in conjunction with Digital Equipment Corporation LA-36 teleprinter. The computer memory was 16K words with 16-bit word length. The computer system controlled test timing, driver's aid trace construction and shift points, CVS control functions, and wet and dry bulb temperature averaging. The computer was also used for providing the analyzer curves and determining curve fit. Test instructions to the operators were also provided by the computer by way of test indicator panels.

4.3.7 Miscellaneous Equipment

4.3.7.1 Driver's Aid

A Hewlett Packard 7128-A dual channel chart recorder was used for illustrating driver's performance. One channel, driven by the computer, illustrated the proper driving cycle and the other pen, which lagged the first by 10 - 15 seconds, was driven by a tach generator located on the rear wheel of the dynamometer.

4.3.7.2 Temperature Monitors

Every 30 seconds wet and dry bulb temperatures in front of the vehicle under test were displayed on Weston 2462 digital voltmeters and recorded on a Gulton NP-7 paper tape recorder. Soak area temperatures were continuously monitored on a Gulton 2133 temperature recording device.

4.3.7.3 Garage Analyzers

SUN EPA-75 non-dispersive infrared gas analyzers were used for measuring HC and CO from the exhaust during the Federal Three-Mode test.

Two Hamilton Test Systems Autosense diagnostic systems were used for measurement of HC and CO during the HTS Idle Test. One Horiba MEXA-240 analyzer which was provided as GFE (Government-furnished equipment) was used for measurement of NO_x during the HTS Idle Test.

4.3.7.4 Meteorological Monitoring Equipment

Weather conditions at the state facility were measured with a Weathermeasure WM-4 weather station.

4.3.7.5 The following additional miscellaneous equipment was also provided:

- NO_x Efficiency Detector - TECO Model 100
- Dynamometer Calibration Equipment
- Laminar Flow Element - Meriam Model 50 MCZ-4F
- Inclined Manometer - Meriam Model 40 HE 35
- Wall Mounted Manometer (2) - 0-60 in. H_2O
- Electric-powered Vehicle Mover
- Paper Tape Reader - Hewlett Packard Model 12925A
- Floppy Disc Terminal (6) - WTI Datamaster II
- CRT Terminal - Lear-Siegler ADM-3

4.4 EQUIPMENT QUALIFICATION AND CALIBRATION

In order to ensure accurate exhaust emission data, all equipment, software, and test procedures were qualified prior to the start of the test program. In addition, rigorous quality control procedures were followed to check and calibrate the equipment at regular intervals throughout the program.

4.4.1 Constant Volume Sampler (CVS)

4.4.1.1 Flow Calibration

Before testing started, each CVS was calibrated with a Meriam model 50 MCZ-4F, 400 cfm laminar flow element (LFE). The flow computer in the CVS control unit was set to reflect the exact flow determined through the use of the LFE.

4.4.1.2 CVS Checks

Each CVS was checked daily by using the propane recovery method. Up to 20 grams of instrument grade propane were injected into the sampler at a rate which would yield a recovery concentration in the upper one-third of the 300 ppm range of the FID. The weight of the propane was determined by weighing the propane bottle before and after injection into the CVS on a scale accurate to 0.01 gram. Determination of the recovered amount was made using the following equation:

$$\text{Mass (grams)} = 17.3 \times 10^{-6} \times \text{Vmix} \times \text{HC conc}$$

where "Vmix" is measured in standard cubic feet and "HCconc" equals the concentration (ppm) of HC measured in the sample bag less the concentration in the background bag.

The hydrocarbon hang-up of each sample bag was checked daily to verify that it was less than 1 ppm. Leak checks of both the dilute and undilute sample systems were performed daily. The bags were also evacuated, purged and leak checked before each test.

4.4.2 Analytical Instrumentation

4.4.2.1 Calibration

Calibration curves using gases named by EPA were generated for each analyzer on each range prior to the start of testing. These curves were regenerated whenever maintenance which could affect the curves was performed on an analyzer, or whenever a calibration bottle was replaced. Three points (zero, 45 and 95 percent of full scale) were used for generation of the HC and NO_x curves and seven points (nominally zero, 10, 25, 35, 50, 70, and 90 percent of full scale) for the non-linear instruments. Verification of a valid curve was determined by all points being within one percent of full scale or five percent of the measured value, whichever was less.

4.4.2.2 Checks

All calibration curves were checked weekly by verifying that all calibration points remained within one percent of full scale or five percent of the measured value, whichever was less.

A wet CO_2 interference check was performed daily on the 100 ppm range of the low CO analyzer. An identical check was performed weekly on the

3000 ppm range of the high CO analyzer. Tolerances for the interference checks were 30 ppm for the high CO analyzer and 3 ppm for the low CO analyzer.

The efficiency of the NO_x converter was checked daily on the 100 ppm range to verify that the efficiency was greater than 90 percent.

Immediately before recording a sample and background reading the analyzers were zeroed and span set on the applicable range. The tolerance on these settings was $\pm$ 0.2 percent of full scale for HC and NO_x and $\pm$ 0.5 percent for CO and CO_2. The span gases used were approximately 80 percent of full scale for each range and were named from the 90 percent calibration gases. These span gases were checked weekly with the calibration gases and were renamed if they exceeded $\pm$ 1 percent of the original setpoint. After the sample and background readings were recorded, the zero and span settings were checked. The tolerance on the zero and span check was $\pm$ 1 percent of full scale.

The tune and gain of each analyzer were recorded daily, as well as the pressure and flow of gas to each instrument.

4.4.3 Dynamometer

4.4.3.1 Calibration

Calibration curves for the FTP and Federal Three-Mode tests were generated for each of the dynamometers prior to the start of testing.

Bi-weekly checks confirmed the calibration of the dynamometers during the entire program.

The curves to determine actual vs. indicated horsepower for the FTP were generated for each inertia weight from 1750 through 5500 lbs, in 250 lb increments up to 3000 lb and 500 lb increments to 5500 lb.

Horsepower settings of 4, 8, and 14 were used for each curve. The coastdown technique was used to determine the actual horsepower after the indicated horsepower had been set on the torque meter. The coastdown technique utilizes a vehicle for setting the horsepower at the desired speed (50 mph for the FTP). Once the setting is made the vehicle is accelerated to a higher speed and the vehicle is then lifted from the dynamometer. The time it takes for the dynamometer loaded roll to slow from 5 mph greater to 5 mph less than the set speed is recorded. Using the following equation the actual horsepower (AHP) is then calculated:

$$AHP = \left(\frac{\text{Inertia Wt.}}{32.2 \text{ ft/sec}} \times \frac{V_1^2 - V_2^2}{550 \times \text{Time}}\right) \times 1/2$$

where V_1 = Initial Velocity in ft/sec,

V_2 = Final Velocity in ft/sec,

Time = Coastdown time in seconds

A strobe light was used to measure the rotative speed of the dynamometer rolls, which is converted to linear speed. A stop watch was used for the time measurement.

For the Federal Three-Mode test, curves to determine the actual vs. indicated horsepower were established for the speeds of 25 mph and 52 mph at an inertia weight of 4000 lbs. Indicated horsepower settings of 2, 4, 6, 8, 10 and 12 were used for the 25 mph curve, and 4, 6, 8, 10, 12, 14, 16, 18 and 20 were used for the 52 mph curve.

4.4.3.2 Dynamometer Checks

The indicated versus actual horsepower FTP calibration curves were confirmed bi-weekly. One point as specified in 38 Federal Register 124 for each curve (2000 - 5500 lbs) was checked to verify that the horsepower value was within $\pm$ 1 hp of the original curve point. The Federal Three-Mode 25 mph and 52 mph curves were also checked bi-weekly. This consisted of checking the high and low data points on both curves and verifying they were within $\pm$ 1 hp of the original points. The coastdown technique was used for all dynamometer checks with three time readings taken for each check and averaged for use in the actual horsepower equation.

Before performing the curve checks, the torque and speed meters were calibrated. The speed meter was calibrated with a General Radio Strobotac at 25 and 50 mph. The torque meter was calibrated with weights at 0, 5, 40 and 75 lbs.

4.4.4 Garage Analyzer Checks

The SUN EPA-75 analyzers were zeroed and span-set (75% of full scale) daily. The 25 percent-of-full-scale points for both HC and CO were checked daily. The span gases used were named from the calibration

gases and were checked weekly.

The Autosense unit used for the Idle Test was checked weekly with the same span gases used for checking the SUN analyzers.

4.4.5 Equipment Logs

Logs containing the status of calibration and working gases, and all calibration and checks were maintained on a daily basis. All maintenance was also recorded in separate log books for each cell.

4.5 TEST PROCEDURES

The tests on each vehicle consisted of the State Idle Test at the DEQ station followed by the following sequence of tests at the HTS facility:

- Idle Test
- Diagnostic Check
- Vehicle FTP Preparation
- Federal Test Procedure
- Federal Three-Mode Test
- Highway Fuel Economy Test

4.5.1 Idle Inspection Test

The idle test was performed with the vehicle hood open and with no auxiliary cooling. The test consisted of a measurement of the vehicle emissions at idle and at 2500 $\pm$ 200 rpm, followed by another idle emissions measurement after the engine was decelerated to normal idle speed and the emissions had stabilized. HC and CO emissions were recorded for each of the three conditions. The idle speed was recorded for the normal idle modes. During the idle test at the HTS facility, NO_X emissions were also measured and recorded for each condition.

At the DEQ station the queue time and following ambient conditions were recorded: temperature, wind, velocity, relative humidity, barometric pressure, and general weather conditions (rain, fog, etc.).

The idle test at the HTS facility was performed with the vehicle in a warmed-up condition and was normally started within one-half hour after arriving. If the vehicle was not tested within one-half hour, the vehicle was preconditioned by a ten-minute drive on city streets. The Dry Bulb and Wet Bulb temperature, relative humidity, and barometric

pressure were recorded at the time of the test.

4.5.2 Diagnostic Check

A complete diagnostic check was conducted utilizing an Autosense Diagnostic System. The checks performed are shown on Diagnostic Inspection form (Figure 4.5-1). This form along with a copy of the Autosense Vehicle Test Report (Figure 4.5-2) was included in the vehicle test packets delivered to EPA.

4.5.3 Vehicle FTP Preparation

Upon completion of the Diagnostic Check at the HTS facility, the vehicle's tank was drained and refueled to forty percent capacity with Indolene HO fuel. Snow tires, if installed, were rotated to non drive-wheel positions. The vehicle was then preconditioned by a ten-minute drive on city streets to evaluate its driveability and to purge any non-test fuel. After the preconditioning drive the vehicle was then cold-soaked in the HTS facility for a period of twelve to twenty hours. The soak temperature was maintained at a temperature between 20° to 30° C (68° to 86° F), and was continuously monitored with a strip chart recorder.

4.5.4 Federal Test Procedure

The Federal Test Procedure (FTP) exhaust emissions test was conducted in accordance with the procedures of 37 Federal Register 221 as amended in 38 Federal Register 124, 38 Federal Register 209, 39 Federal Register 14, and 39 Federal Register 101. The temperature during the test was maintained between 20° to 30° C (68° to 86° F).

DIAGNOSTIC INSPECTION

TEST: INITIAL 92
RETEST 93/DRIVEABILITY

EPA NO. _ _ _ _ _ _ _ _ _ _ _
DATE _ _ _ _ _ _

ARE THE FOLLOWING WORKING PROPERLY OR WITHIN MANUFACTURERS SPECIFICATIONS?

YES	NO	N/A	TEST
1	2	3	IDLE SPEED
1	2	3	FAST IDLE SPEED
1	2	3	IGNITION TIMING @ IDLE
1	2	3	MECHANICAL ADVANCE @ 2500 rpm
1	2	3	TOTAL ADVANCE @ 2500 rpm
1	2	3	COIL PRIMARY VOLTAGE
1	2	3	DISTRIBUTOR POINT VOLTAGE DROP
1	2	3	SPARK PLUG FIRING VOLTAGE
1	2	3	ROTOR GAP VOLTAGE
1	2	3	CYLINDER POWER DISTRIBUTION
1	2	3	RELATIVE CYLINDER COMPRESSION
1	2	3	DWELL

ARE THE FOLLOWING PRESENT, IN GOOD CONDITION AND WORKING PROPERLY?

YES	NO	N/A	TEST
1	2	3	AIR PUMP - BELTS, HOSES
1	2	3	EGR - HOSE CONNECTION/CONDITION AND FUNCTIONAL CHECK
1	2	3	PCV VALVE - OPERATION
1	2	3	IGNITION WIRES - CONDITION AND ROUTING
1	2	3	VACUUM HOSES - CONDITION AND ROUTING
1	2	3	AIR FILTERS - CONDITION
1	2	3	HEAT RISER - OPERATION
1	2	3	AUTOMATIC CHOKE - FREEDOM OF MOVEMENT, CORRECT LINKAGE HOOKUP
1	2	3	IDLE LIMITER CAPS
1	2	3	ARE REDDISH-ORANGE OR RUST COLORED DEPOSITS VISIBLE ON SPARK PLUG TIPS?

Figure 4.5-1 (Sheet 1 of 2)

HTS

DIAGNOSTIC INSPECTION (PART 2)
ELEMENT III ONLY

PROPANE IDLE CHECK: __ __ __ __ RPM

	MEASURED	SPECS
IDLE SPEED	__ __ __ __ RPM	__ __ __ __ RPM
DWELL	__ __ DEG	__ __ DEG
TIMING	(__) __ __ DEG	(__) __ __ DEG
MECHANICAL ADVANCE	__ __ DEG	__ __ DEG
TOTAL ADVANCE	__ __ DEG	__ __ DEG

DRIVEABILITY EVALUATION

ENGINE STARTING	TRANSMISSION	CLUTCH	BRAKES
1. GOOD	1. OK	1. OK	1. OK
2. HARD	2. SHIFTS HARD	2. GRABS	2. FADE
3. FALSE	3. SLIPS	3. SLIPS	3. POOR
		4. N/A	4. NONE

DRIVEABILITY

	YES	NO		YES	NO
1. OK	1	2	5. STRETCHY	1	2
2. SURGE	1	2	6. ENGINE MISS	1	2
3. STUMBLE	1	2	7. DIESELS	1	2
4. BACKFIRE	1	2			

Figure 4.5-1
(Sheet 2 of 2)

HTS PTL 027 Watts

Figure 4.5-2

autosense®

COMPUTER VEHICLE REPORT

TEST NO. USED (See test description)	LOW LIMIT	YOUR VEHICLE TEST RESULTS	HIGH LIMIT
01900			
AIDN-7630	FO 250A, S6		
908	TUNE-UP/RUNNING		
31	75	99	100
32	75	94	100
33	75	100	100
34	75	95	100
35	75	97	100
36	75	93	100
40	540	640	660
51	8.0	14.9	20.0
52	8.0	14.3	20.0
53	8.0	12.9	20.0
54	8.0	14.6	20.0
55	8.0	14.9	20.0
56	8.0	13.0	20.0
67	----	90	200
68	----	.00	1.50
50	5.0	7.0	7.0
89	12.0	13.6	16.5
90	29.5	33.3	39.0
86	----	30	200
87	----	.00	1.00
71	8.0	16.6	25.0
72	8.0	17.5	25.0
73	8.0	16.3	25.0
74	8.0	20.4	25.0
75	8.0	17.3	25.0
76	8.0	14.3	25.0
64	1700	1910	----
41	6.0	6.6	----
42	6.0	8.3	----
43	6.0	8.6	----
44	6.0	8.2	----
45	6.0	8.6	----
46	6.0	8.7	----
66	13.0	21.8	----
908	TUNE-UP/RUNNING		
0 R/C -	SECONDARY IGNITION		
0 R/C -	CYLINDER PERFORMANCE		
0 R/C -	TIMING-IGNITION		

TEST NUMBER	TEST DESCRIPTION
1	Battery Voltage (Volts)
2	Battery Drain (Amps)
3	Primary Ignition Current (Amps)
4	Battery To Ignition Switch Drop G/M Plug Only (Volts)
5	Coil Primary Voltage (Volts)
6	Coil Negative Voltage (Std. Ign. Points) (Volts)
7	Ignition Switch Voltage Drop G/M Plug Only (Volts)
10	Starter Cranking Current (Amps)
11	Battery + To Starter Voltage Drop (Volts)
12	Battery + To Starter Solenoid Voltage Drop (Volts)
13	Starter Solenoid Coil Voltage (Volts)
14	Battery Load Cranking (Volts)
15	Battery To Coil Cranking Voltage Drop (Volts)
16	Cranking RPM (RPM)
17	Instantaneous Cranking RPM (RPM)
30	Basic Timing Cranking (Degrees)
39	Ignition Switch Voltage Drop G/M Plug Only (Volts)
40	Curb Idle (RPM)
49	Distributor Point Dwell Idle (Degrees)
50	Basic Timing — Vacuum Disconnected (Degrees)
59	Coil Output Engine Off (Kilovolts)
60	Coil Output Voltage At Distributor (Kilovolts)
61	Distributor Rotor To Cap Voltage (Kilovolts)
62	Coil Condenser Oscillation Level (Counts)
63	Coil Condenser Oscillations (Counts)
64	Choke Fast Idle (RPM)
65	Solenoid Curb Idle (RPM)
66	Manifold Vacuum (In. Hg)
67	Emissions Hydrocarbon Content (PPM At Idle)
68	Emissions Carbon Monoxide Content (Percent At Idle)
69	Headlight Switch Voltage Any RPM G/M Plug Only (Volts)
70	Battery To Coil Voltage Drop (Volts)
79	Accelerator Pump (Percent Rise)
81	Distributor Dwell Deviation Per Cylinder (Degrees)
82	Dwell Variation 2500 RPM (Degrees)
85	Vacuum Rise 2500 RPM (In. Hg)
86	Emissions Hydrocarbon Content 2500 RPM (PPM)
87	Emissions Carbon Monoxide Content 2500 RPM (Percent)
89	Total Timing w/o Vacuum 2500 RPM (Degrees)
90	Total Timing w/ Vacuum 2500 RPM (Degrees)
92	Battery Ground Voltage Drop (Volts)
95	Battery Voltage Charging 2500 RPM (Volts)
96	Regulator Voltage 2500 RPM (Volts)
97	Alternator Demand (Amps)
98	Alternator Output Voltage 2500 RPM (Volts)
99	Battery Charging Current 2500 RPM (Amps)
131	Relative Cylinder Compression (Percent)
141	Cylinder Power Contribution (Percent)
151	Spark Plug Firing Voltage (Kilovolts)
171	Spark Plug Voltage Under Load (Kilovolts)

METER

823	Multimeter (Volts, Amps, RPM)
824	Individual Spark Plug Firing Voltage (Kilovolts)
825	Spark Plug Voltage Balance (Kilovolts)
826	Spark Plug Firing Line (Kilovolts)
834	Emissions (HC, CO, RPM)
841	Cylinder Power Contribution (Percent)
861	Per Cylinder Fuel Delivery (HC)
874	Engine Power Balance — Even (Percent, RPM)
875	Engine Power Balance — Odd (Percent, RPM)
880	Timing Meter (Degrees)
881	Per Cylinder Dwell (Degrees)
866	Vacuum Gauge (In. Hg, RPM)
888	Dwell Meter (Degrees, RPM)

Owner _____ Phone # _____

* INDICATES OUT OF LIMIT CONDITION
! Indicates test condition not met
M Indicates data entered by operator

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the actual dynamometer horsepower settings for each type of vehicle tested are shown on Table 4.1-1. The shift points used for the manual transmission vehicles were as shown in Table 4.5-1.

The Federal Test Procedure consists of a cold transient, cold stabilized and hot transient test portions. The two transient portions are each 505 seconds long and simulate a driving distance of 3.59 miles. The stabilized portion is 867 seconds long and covers a distance of 3.91 miles.

4.5.5 Federal Three-Mode Test

The Federal Three-Mode Test consisted of three steady-state operating modes with dynamometer loads simulating the average power occurring at the appropriate speed during the Federal Test Procedure. The actual horsepower settings used for the test are shown on Table 4.1-1. The three modes were High Speed (52 mph), Low Speed (25 mph), and Idle. For vehicles with manual transmissions the High Speed test was conducted in the fourth gear (third gear for three-speed transmissions), the Low Speed test was conducted in third gear, and the Idle test in neutral. Vehicles with automatic transmissions were tested in Drive for all modes. The HC and CO undiluted exhaust emissions were simultaneously measured on the "laboratory" instruments and visually observed on the "garage" EPA-75 analyzer for each of the modes. NO_x was also measured and recorded during the test. The test was preceded by a six-minute soak period. At the start of the soak the engine is stopped and after three minutes, is restarted and allowed to idle for the final three minutes. The test was conducted with the

SHIFT POINTS

Table 4.5-1

The shift points for vehicles with manual transmissions were as follows with the exceptions specified below:

	1-2	2-3	3-4	4-5
3 - SPEED	20 mph	30 mph		
4 - SPEED	15 mph	25 mph	40 mph	
5 - SPEED	15 mph	25 mph	40 mph	not used

EXCEPTIONS

1. 5 speed 1975 Hondas were shifted from 4th to 5th gear at 55 mph during the HFET.

2. 5 speed 1977 Hondas were shifted at 10, 20, 30 and 45 mph.

3. Datsun B210s were shifted at 15, 25, 40 and 50 mph.

4. 1976 and 1977 Pintos and Mustang IIs with a U or W transmission code and a 140 CID engine were shifted at 10, 20 and 30 mph.

5. 1976 Pintos and Mustang IIs with an X transmission code and a 140 CID engine were shifted at 10, 25 and 35 mph.

6. 1977 Pintos and Mustang IIs with a V or X transmission code and a 140 CID engine were shifted at 10, 20 and 35 mph.

7. 1975 Vegas with a 140 CID engine were shifted at 20, 30 and 40 mph.

8. 1976 Chevettes were shifted at 10, 25, and 40 mph.

9. Toyotas were shifted from 4th to 5th gear at 45 mph during the HFET.

10. 1977 Toyota Coronas were downshifted from 3rd to 2nd at the 187 second point of the FTP driving cycle.

hood closed and no auxiliary cooling. The measurements for each mode were taken ten seconds after the proper speed was reached and the horsepower settings were made. The result recorded was the average value of twenty seconds of readings after the ten-second stabilization. The average value for the laboratory analyzers was calculated from strip chart records. The average value from the garage analyzers is a visual estimate.

4.5.6 Highway Fuel Economy Test (HFET)

The HFET involved vehicle operation on a dynamometer over a 10.2 mile driving schedule for a duration of 765 seconds. The test was started with the vehicle in a warmed-up condition (at least 7.5 miles of cyclic operating having occurred within the preceding thirty-five minutes) and preconditioned with the vehicle operated at 50 MPH for a period of three minutes. Within one minute of the end of the 50 MPH cruise the vehicle was brought to an idle condition and the 10.2 mile driving schedule was started.

The dynamometer load settings, transmission shift points and temperature requirements were identical to those used for the FTP. One CVS sample bag was used for collecting the dilute exhaust. HC, CO, CO_2 and NO_x were measured and emissions calculated in grams per mile along with fuel economy in miles per gallon.

4.6 DATA HANDLING & QUALITY CONTROL

The data are basically classified into three types. They are 1) the manual data which are acquired from questionnaires and other documentation, 2) the emissions data which are recorded on data sheets in the laboratory, and 3) the vehicle identification data which were stored on file at the Michigan Terminal System (MTS). The end product of the data processing was the formatting of the manual data and emissions data on separate flexible discs for transmittal to MTS where the data were merged with the vehicle identification data and final formatted. The formatted data were then placed in a file which was accessible to EPA. The flow of the data handling system is shown on Figure 4.6-1.

4.6.1 Manual Data Handling

The manual data for the initial test sequence were collected on the Vehicle Owner Questionnaire (Figure 4.6-2), the Vehicle Summary Sheet (Figure 4.6-3), and the Diagnostic Inspection form (Figure 4.5-1). For the retests the data were collected on the Vehicle Maintenance Record (Figure 4.6-4), the Vehicle Summary Sheet and the Diagnostic Inspection form. The data acquired on these documents were then keypunched on a terminal and Data Master II unit to a flexible disc. The same data were then re-keypunched by a different HTS employee, automatically checked for comparison, and editted as required.

A hard copy of the data on the disc was made and kept as a backup file. A copy of the questionnaires and other documentation was included in

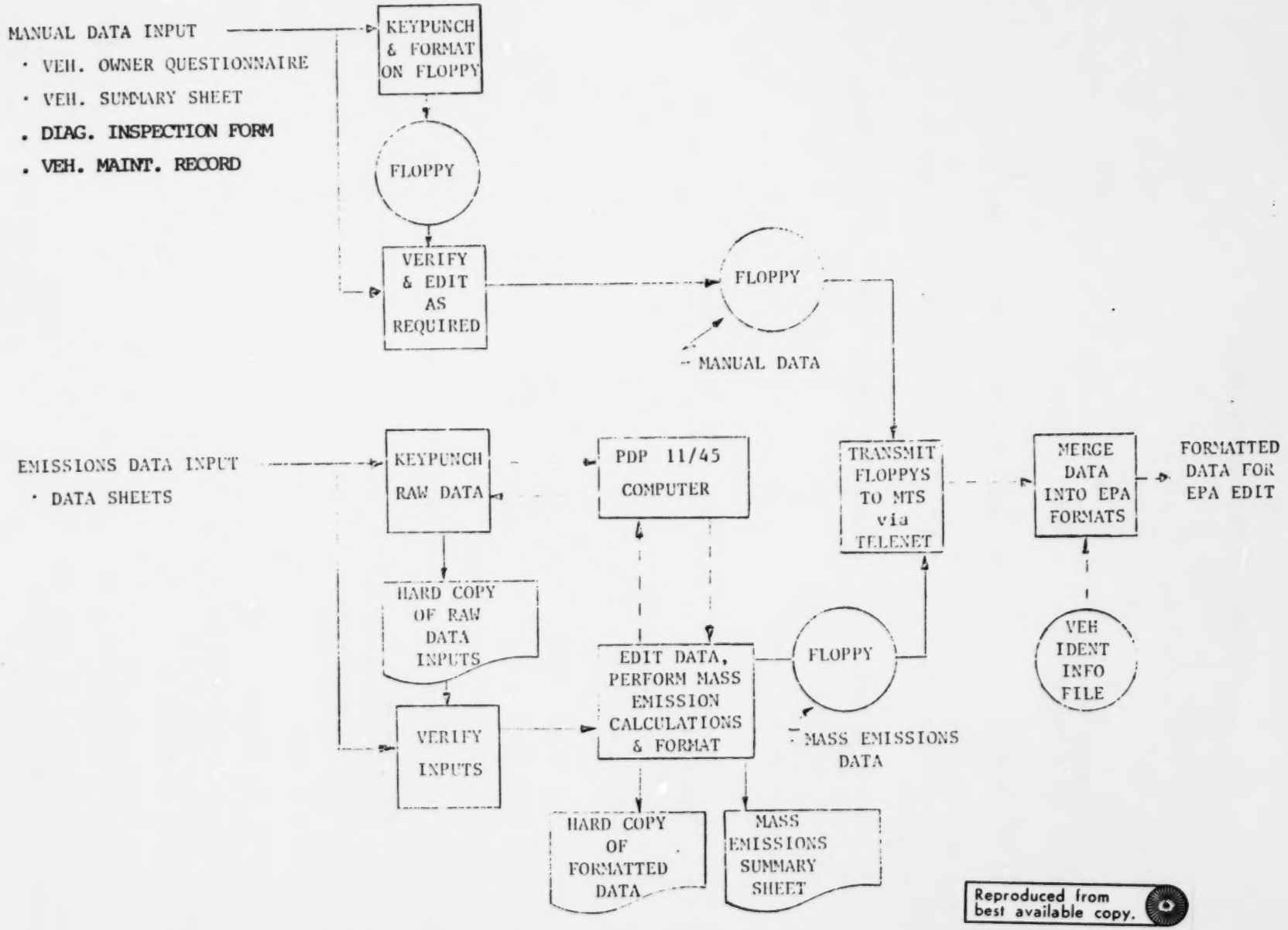

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FIGURE 4.6-1 DATA HANDLING FLOW CHART

VEHICLE OWNER QUESTIONNAIRE

VID _____

TEST NO. 81

TAG NO. _____

DATE _____

1. Did you purchase (or lease) the vehicle new or used? — 1 NEW; 2 USED

2. How long ago did you purchase the vehicle? — 1 0-3 mos.; 2 3-12 mos.; 3 1-2 yrs.; 4 Over 2 yrs.

3. On a yearly basis, how many thousands of miles is this vehicle driven? — 1 0-5; 2 5-10; 3 10-15; 4 15-20; 5 20-30; 6 Over 30

4. Where is the driving done?

	Almost All	Most	Some	Little or None
a) City Expressways	1	2	3	4
b) Major City Streets	1	2	3	4
c) Other City Streets	1	2	3	4
d) Rural Expressways & other Rural Roads	1	2	3	4

5. How is the driving done?

	Almost All	Most	Some	Little or None
a) To and from work	1	2	3	4
b) Shopping and errands	1	2	3	4
c) Business (not to & from work)	1	2	3	4
d) Other (social, vacation, etc.)	1	2	3	4

6. How did you get here today? a) 1 City Streets Only; 2 Some Express-ways; 3 Primarily Express-ways — b) Approx. Miles ☐☐

7. How is this vehicle used?

	Almost All	Most	Some	Little or None
a) Driver only	1	2	3	4
b) Driver and 1 passenger	1	2	3	4
c) Driver and 2 or more passengers	1	2	3	4
d) Driver only with heavy cargo	1	2	3	4
e) Driver, passenger and cargo	1	2	3	4
f) Towing a trailer	1	2	3	4

8. On a typical day, how many trips are made with this vehicle: (One trip is defined as starting the engine, traveling some distance and stopping the engine.) ☐☐

9. On a weekly basis, how often is full-throttle acceleration used? — 1 Seldom; 2 Once or Twice; 3 3-6 Times; 4 Every Day

10. Approximately what fuel economy (in miles per gallon) does your vehicle obtain?

a) Overall ☐☐
b) Highway Driving ☐☐
c) City Driving ☐☐

(Enter 00 if owner does not know.)

Figure 4.6-2 (Sheet 1 of 3)

11. Do you now experience any engine

a) Hard Starting	☐	f) Stumbling	☐
b) Stalling	☐	g) Dieseling	☐
c) Rough Idle	☐	h) Other	☐
d) Engine Misfiring	☐	i) No major problems	☐
e) Poor Accel.	☐		

12. Overall, are you reasonably satisfied with the engine performance of this vehicle?

Yes	Most of the Time	No
1	2	3

13. How long ago was the last oil change?

1	2	3	4	5	6
Too New not due	Due but not yet done	0-6 mos. ago	6-12 mos.	Over 1 yr.	Don't know

14. How often is this vehicle tuned-up?

1	2	3	4	5	6
No tune-up yet	Per. mfrs recommend.	Every 6 mos.	Every yr.	Less Often	Don't Know

15. How long ago was the last tune-up?

1	2	3	4	5	6
Too new not due	Due but not done	0-6 mos.	6-12 mos.	Over 1 yr.	Don't Know

16. Who performed this tune-up?

1	2	3	4	5	6
No tune-up	Dealer	Independent garage	Tune-up Clinic	Your-self	Don't know

17. Approximately, how much did the tune-up cost? (Try to exclude other work done at the same time.)

$ _ _ _ _. ☐ 999 No tune-up ☐ 000 Don't know

18. Would you consider that the vehicle has been maintained in accordance with the manufacturer's recommendations?

1	2	3
Yes	No	Don't know

19. How many times has the vehicle been returned for emission control repairs under warranty?

1	2	3	4	5
Once	Twice	3 or more	Never Returned	Not under warranty

20. Has the vehicle ever been returned under warranty for the correction of any driveability problems?

1	2	3
Yes	No	Not under warranty

21. How long ago was it returned for the correction of any driveability problems while under warranty?

1	2	3	4	5	6
0-3 months	3-6 months	over 6 months	Never returned	Don't know	Not under warranty

Figure 4.6-2
(Sheet 2 of 3)

HTS PTL 013 Watts

22. Does your vehicle require the use of unleaded fuel?

1	2
Yes	No

23. If your vehicle requires unleaded fuel, how often is leaded fuel used?

1	2	3	4	5	6
Not applicable	Never	Seldom	Ocassion-ally	Frequently	Don't know

24. What is the brand name (not just company name) of the fuel you normally use (eg., Gulftane, Sunoco 190, Fire Chief?)

_____

25. Have you, or others, ever noticed a hydrogen sulfide (rotten eggs) odor in this vehicle's exhaust?

1	2	3	4	5
Never	Seldom	Ocassion-ally	Frequently	Don't know

26. Is this vehicle operated regularly on unpaved roads, in competitive events, or in hauling or transporting loads heavier than for which it was designed?

1	2	3
Yes	No	Don't know

27. Has the vehicle ever had major damage in any of the following areas?

- ☐ a) Engine
- ☐ b) Cooling System
- ☐ c) Fuel System
- ☐ d) Exhaust System
- ☐ e) No Damage
- ☐ f) Don't know

28. Has this vehicle ever been modified by the installation of high performance equipment (cams, headers, carburetor's ignition parts, transmission shift kits, etc.)?

1	2	3
Yes	No	Don't know

Figure 4.6-2
(Sheet 3 of 3)

VEHICLE SUMMARY SHEET - ELEMENT III

EPA NO _ _ _ _ _ _ _
GR/SEQ 5 _
VID NO _ _ _ _ _ _ _
DATE 7 9 _ _ _ _

INITIAL TEST 80

AIR CONDITIONING: 1. YES 2. NO
ELECTRONIC IGNITION: 1. YES 2. NO
IDLE LIMITER CAPS: 1. OK 2. DAMAGED 3. MISSING
FUEL FILLER NECK DAMAGED OR ALTERED: 1. YES 2. NO
ODOMETER: _ _ _ _ _ _

TEMP _ _ °F WIND _ _ MPH REL. HUMID _ _ %
PRECIP: 1. RAIN 2. SNOW 3. FOG 4. NONE
BARO PRESS: _ _ . _ _ IN HG

STATE IDLE TEST 90

	IDLE	2500	IDLE	P/F STATUS
HC(PPM)	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _
CO(%)	_ _ . _	_ _ . _	_ _ . _	_ _ _
RPM	_ _ _ _		_ _ _ _	_ _ _

QUEUE TIME: _ _ MIN DATA CODE: _ DEQ UNIT NO: _ _

D.B.TEMP: _ _ °F W.B.TEMP: _ _ °F
BARO PRESS: _ _ . _ _ IN HG

HTS IDLE TEST 91

	IDLE	2500	IDLE
HC(PPM)	_ _ _ _	_ _ _ _	_ _ _ _
CO(%)	_ _ . _	_ _ . _	_ _ . _
NOX(PPM)	_ _ _ _	_ _ _ _	_ _ _ _
RPM	_ _ _ _		_ _ _ _

DATA CODE: _ REL HUMID: _ _ % BATCH: _ _ _ _

Figure 4.6-3

VEHICLE MAINTENANCE RECORD

EPA NO.__ __ __ __ __ __ GR/SEQ.__ __

TEST: 82 DATE: __ __ __ __ __ __

Were the following items repaired, replaced, or adjusted?

		REPAIRED	REPLACED	ADJUSTED	NO
1.	Spark Plugs.....	1	2	3	4
2.	Spark plug wires.....	1	2	3	4
3.	Points and condenser.....	1	2	3	4
4.	Distributor cap and rotor....	1	2	3	4
5.	Spark timing control devices.	1	2	3	4
6.	Carburetor.....	1	2	3	4
7.	Choke.....	1	2	3	4
8.	Intake system.....	1	2	3	4
9.	Air filter.....	1	2	3	4
10.	Engine oil.....	1	2	3	4
11.	Idle speed.....	1	2	3	4
12.	Timing.....	1	2	3	4
13.	Dwell.....	1	2	3	4
14.	Air injection system.....	1	2	3	4
15.	EGR system.....	1	2	3	4
16.	PCV system.....	1	2	3	4
17.	Valves.....	1	2	3	4
18.	Other emission related maint: _____	1	2	3	4

19. Maintenance was performed by:
    1. Auto dealer service dept
    2. Independent repair garage
    3. Service station
    4. Owner
    5. Other
    6. No maintenance

20. Have you kept it confidential that you are participating in an inspection/ maintenance program? 1. YES 2. NO

21. How much did maintenance cost? (to nearest dollar) $__ __ __ (No maint= 888 (Don't know=999 ($0.00= 000

22. Mileage (odometer reading to nearest mile)___ ___ ___ ___ ___ ___

ELEMENT III ONLY

23. Do you now experience any engine:

	YES	NO		YES	NO
Hard starting	1	2	Stumbling	1	2
Stalling	1	2	Dieseling	1	2
Rough idle	1	2	Other	1	2
Engine misfiring	1	2	No major		
Poor acceleration	1	2	problems	1	2

24. Overall, are you reasonably satisfied with the engine performance of this vehicle? YES 1 MOST OF THE TIME 2 NO 3

Figure 4.6-4

the vehicle test packets delivered to EPA.

4.6.2 Emissions Data Handling

The raw emissions data were recorded on the Emissions Data Sheets (Figure 4.6-5) by the CVS technicians from the gas analyzer strip chart recordings. As a quality check a second set of Emissions Data Sheets was generated by the QC personnel directly from the strip charts. The two sets of data sheets were then compared and any discrepancy was corrected. As a further check a second QC employee would recheck the two sets for agreement.

After the Emissions Data Sheets were corrected, the data were key-punched into a terminal connected via a modem to a local computer service. The computer used was a DEC PDP 11/45, and was programmed to prompt the inputs, perform the emissions calculations, and format the data. Prior to commanding the computer to perform the emissions calculation, a hard copy of the raw inputs (Figure 4.6-6) was checked by QC personnel to verify that all entries were correct. Any errors were corrected by an edit routine. After the raw inputs were verified the emissions calculations were performed, yielding as output the Mass Emissions Summary Sheet (Figure 4.6-7), and the flexible disc of the formatted data. As a backup a hard copy of the formatted disc data was also made. The Mass Emissions Summary Sheet was then checked for reasonableness of results.

HAMILTON TEST SYSTEMS

FTP EMISSIONS DATA SHEET
Figure 4.6-5
(Sheet 1 of 2)

RUN NUMBER | OPERATOR | DRIVER | IHP

0 EPA NUMBER | GR/SQ | 7 DATE (YYMMDD) | SITE | INERTIA WT | CODE | AHP

FTP 30 TEST | DATA CODE | BARO | DB | WB | VMIX

COLD TRANSIENT

BAG SET 1 — SAMPLE / BACKGROUND

CO	NO_x	CO_2	HC
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT

COLD STABILIZED

BARO | DB | WB | VMIX

BAG SET 2 — SAMPLE / BACKGROUND

CO	NO_x	CO_2	HC
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT

HOT TRANSIENT

BARO | DB | WB | VMIX

BAG SET 3 — SAMPLE / BACKGROUND

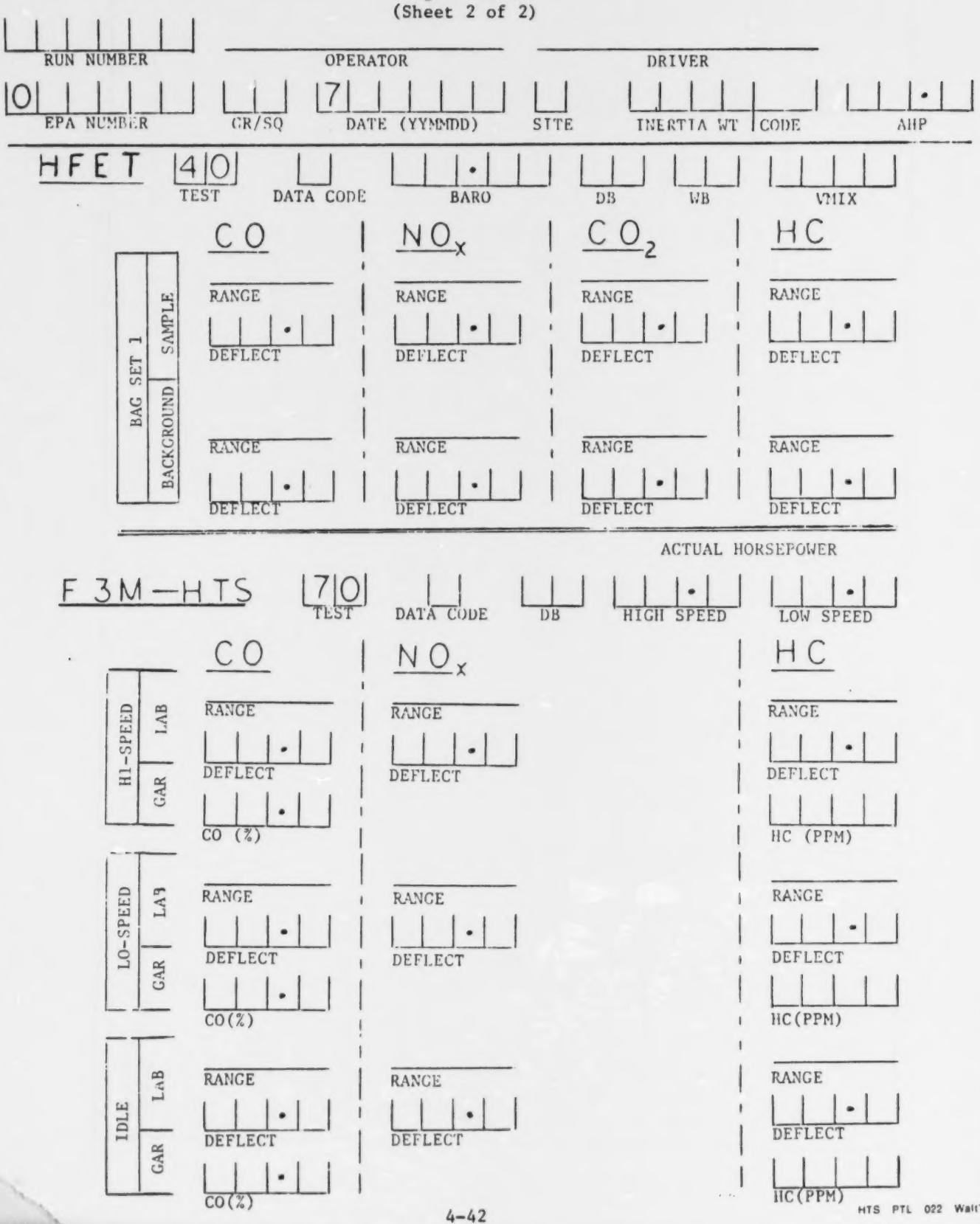
CO	NO_x	CO_2	HC
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT
RANGE	RANGE	RANGE	RANGE
DEFLECT	DEFLECT	DEFLECT	DEFLECT

HTS PTL 02

HAMILTON TEST SYSTEMS

HFET/F3M EMISSIONS DATA SHEET

Figure 4.6-5
(Sheet 2 of 2)



HTS PTL 022 Walt's

TEST#	EPA#	GR/SQ	DATE	SITE	IN.WT	HP	DCODE	BARO	TDB	TWB	VMIX			
30	061004	53	790613	3	4000	13.2	1	30.10	73	56	2976			
		COS	COB		NOXS		NOXB	CO2S		CO2B		HCS	HCB	BAG1
RANGE		500	500		250		250	4		4		300	300	
DEFLECT		81.3	.1		43.2		.1	39.6		.9		59.9	1.5	
								BARO	TDB	TWB	VMIX			
								30.10	74	57	4995			
		COS	COB		NOXS		NOXB	CO2S		CO2B		HCS	HCB	BAG2
RANGE		100	100		100		100	4		4		50	50	
DEFLECT		8.9	.5		30.7		0	25.3		1		29.6	8.9	
								BARO	TDB	TWB	VMIX			
								30.10	75	57	2910			
		COS	COB		NOXS		NOXB	CO2S		CO2B		HCS	HCB	BAG3
RANGE		100	100		250		250	4		4		50	50	
DEFLECT		82	1		38.2		0	35.3		1		81.1	8.1	
TEST#	EPA#	GR/SQ	DATE	SITE	IN.WT	HP	DCODE	BARO	TDB	TWB	VMIX			
40	061004	53	790613	3	4000	13.2	1	30.10	75	57	4281			
		COS	COB		NOXS		NOXB	CO2S		CO2B		HCS	HCB	BAG1
RANGE		100	100		250		250	4		4		50	50	
DEFLECT		15.3	1.3		84.7		0	55		1		36.3	8.9	
TEST#	EPA#	GR/SQ	DATE	SITE	DCODE	TDB	HPHI	HPLO						
70	061004	53	790613	3	1	74	18.0	08.5						
HI-SPEED		CO(%)			NOX			HC(PPM)						
RANGE		3			2500			3000						
DEFLECT		.1			62.1			4.6						
GARAGE		0						30						
LO-SPEED		CO(%)			NOX			HC(PPM)						
RANGE		3			2500			3000						
DEFLECT		.1			21.6			4						
GARAGE		0						20						
IDLE-SPD		CO(%)			NOX			HC(PPM)						
RANGE		3			2500			3000						
DEFLECT		.1			9			2.5						
GARAGE		0						20						

RAW INPUTS

FIGURE 4.6-6

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Mass Emission Data Summary
Hamilton Test Systems

EPA Number 061004-53 Report made 14-Jun-79

TEST	BAG(UNITS)	HC	CO	CO2	NOX	NOXC	MPG
FTP-30	CT(grams)	008.55	038.55	2111.5	17.38	14.81	******
	CS(grams)	000.87	001.17	2164.5	08.30	07.14	******
	HT(grams)	001.75	007.56	1812.9	15.06	12.87	******
	COMP/GPM	000.74	002.94	0547.4	03.25	02.78	16.0
HFET-40	GPM	000.10	000.17	0430.7	04.80	*****	20.56

	Hi					Low					Idle				
	HC-L	CO-L	NOX-L	HC-G	CO-G	HC-L	CO-L	NOX-L	HC-G	CO-G	HC-L	CO-L	NOX-L	HC-G	CO-G
TEST 70	0134.0	00.0	1517.1	0030	00.0	0115.6	00.0	0534.4	0020	00.0	0069.7	00.0	0228.6	0020	00.0

MASS EMISSION DATA SUMMARY

FIGURE 4.6-7

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4.6.3 Vehicle Identification Data

The following information was stored in file at the Michigan Terminal System (MTS) for approximately 35,000 vehicles. The information was retrieved by a code number which was transmitted to MTS with the manual data.

- Vehicle Identification Number (VIN)
- Engine Family Designation
- EPA Vehicle Manufacturer and Model Codes
- Model Year
- Engine Displacement and Type
- Number of Cylinders
- Fuel Metering
- Inertia Weight
- Types of Emission Controls

4.6.4 Mass Emissions and Fuel Economy Calculation

The mass emissions for the FTP results were calculated in accordance with the applicable Federal Register requirements. The Highway Fuel Economy Test mass emissions were calculated in the same manner except that a distance of 10.242 miles was used to calculate grams per mile.

The fuel economy results were calculated using the carbon balance method. The equation used was:

$$mpg = \frac{2421}{0.866\ HC_{mass} + 0.429\ CO_{mass} + 0.273\ CO_{2_{mass}}}$$

In this equation, the mass emissions are in grams per mile.

5.0 TEST RESULTS

The test results for the Element III study are provided in the Appendices. The contents of these appendices are as follows:

Appendix A - provides a listing of vehicles recruited for the program.

Appendix B - provides the test results for all vehicles recruited for the 3 month retest.

Appendix C - provides the test results for all vehicles recruited for the 2 month retest.

Appendix D - provides the test results for all vehicles recruited for the 1-1½ month retest.

The first digit of the EPA number represents the model year of the vehicle. The second digit represents the Pass or Fail status based on the DEQ inspection (1 = Pass, 2 = Fail). The DEQ inspection requirements for determining Pass or Fail status are as follows:

- Factory-installed motor vehicle pollution control systems must not be disconnected, plugged or otherwise made inoperative.
- Idle speed must not exceed the manufacturer's idle speed specifications by over 200 RPM.
- No visible emission during the idle test from either the vehicle's exhaust system or engine crankcase.

- The hydrocarbon (HC) idle emission standards and enforcement tolerances for the vehicles tested in the program are as follows:

	Standard (ppm)	Enforcement Tolerance (ppm)
1975-77 Vehicles with catalyst	125	100
1975-77 Vehicles without catalyst	200	100
1972-74 Vehicles with 6 or 8 cyl.	300	100
1972-74 Vehicles with 4 cylinders	400	100

- The carbon monoxide idle emission standards and enforcement tolerances for the vehicles tested are as specified in Table 5.0-1.

The EPA numbers in the appendices are in numerical order. A cross-reference of Cells shown on Table 4.1-1 to EPA numbers is provided in Table 5.0-2.

The vehicles which exhibited significant increase in exhaust emissions as determined by EPA were as follows:

3 Month Retest	2 Month Retest	1-1½ Month Retest
52003	51054	51124
52007	52054	52101
52019	52065	72107
72004	72063	72112
72006		72115

Table 5.0-1

DEQ STANDARDS & ENFORCEMENT TOLERANCES FOR ELEMENT III VEHICLES

Carbon Monoxide	Standard %	Enforcement Tolerance
American Motors Corporation		
1975-77 Non-catalyst	1.5	0.5
1975-77 Catalyst equipped	0.5	0.5
Audi		
1975-77	1.5	0.5
Chrysler Corporation		
1975-77 Non-catalyst	1.0	0.5
1975-77 Catalyst equipped	0.5	0.5
Dodge Colt, Plymouth Arrow	3.0	0.5
Datsun		
1975-77	2.0	0.5
Ford Motor Company		
1975-77 Non-catalyst	1.0	0.5
1975-77 Catalyst equipped	0.5	0.5
General Motors Corporation		
1975-77 Non-catalyst	1.0	0.5
1975-77 Catalyst equipped	0.5	0.5
Honda		
1975-77 CVCC	1.0	0.5
1975-77 except CVCC	1.5	0.5
Toyota		
1975-77 Catalyst equipped	0.5	0.5
1975-77 4 cylinder, non-catalyst	2.0	0.5
Volkswagen		
1975 Rabbit, Dasher, Scirocco	0.5	0.5
1977 Rabbit, Scirocco	2.0	0.5
1975-77 Beetle	2.5	0.5
1977 Dasher	2.5	0.5
Volvo		
1975-77 4 cylinder	2.0	0.5

TABLE 5.0-2

CELL VS EPA NUMBER CROSS REFERENCE

Vehicles Recruited for

CELL NO	1-1½ Mo. Retest	2 Mo. Retest	3 Month Retest
01	52108,51124	52071	52007,51021
03	72104,51133	52051,52072	52005,52012
04	51105,51106	51070	71014,71022
05	51113	71051,71053	71000,51018
06	71109,72101	71060,72058	72008
07	51120,51127,51132	51051,51061,51065	51008,52015,51024
08	71117,71110	71067,71069	71002
09	51101,51123,51130	52061,52064,51069	51005,51017,51020
10	71106,71111	71073	71003,71016
11	51131,71122	51058,51060	51001
12	71119,72117	72052,72061,71070	72003,71008,72011
13	72108,72114	71062,71075	72000
14	52111	52057,52065	52002,52019
15	62103,62105	61058	62003,61005
16	71101	72054,72059	72001,72005
17	51128,52112	51053,51055	51015
18	62102,61104	61059	62000,61006
19	72111,72113	71064	71001,72016
20	52103,51118	52056,52063	52003
22	51102,52102	52060	51000,52004
24	61101,61102	61056	62001,62002,61001
26	71105	71052,71068	71011,71017
28	52107,51109	52059,52067	51007
29	61103,51115,51119	61057,61061	51003,52013,52017
30	51125,51129,51134	51059,51066	51006,52009
31	62104,61106	51057,61060	51014
32	51114,51116	51068,61062	51002
33	51122,51126	51063,51071	51019
34	71120,72116	72064,71074	72007
35	71112	72060,71067	72002,72006

TABLE 5.0-2 CONT'D

CELL VS EPA NUMBER CROSS REFERENCE

Vehicles Recruited for

CELL NO	1-1½ Mo. Retest	2 Mo. Retest	3 Mo. Retest
36	72112,71118	72055,72063	71007
38	71102,72106	71059,71061	71004
39	52104,52110	51067	52011,52018
41	52101,51110	52053,52070	52001
42	51117,51121	52054,52068	51004,51011,51012
43	51104,51107	51073	51016,51023
44	62101	61051,61052	61002,61004
45	61107	61054,61055	61000,61003
46	61105	72057	72010,71020,72012
48	51111	51052,51064	52010,52021
49	51103	52055,51054	51013,52020
50	52106,51112	52052,52066	52006
51	52105	52062,52069	52008,52014
52	71103,71121	61053,71066	71006
54	72115,71123	72053,71054	72015
55	72107,71114	72051,71072	71009,71012,71013
56	71115	71057,71058	71021,72014
57	71104,72109	71055	71005,71015
58	72105,71113	71065,72062	72009
59	72103	71056,72065	71019,72013
60	72102,72110	72056,71063	72004
61	51108	51056,51062	51009,52016
62	71107,71116	71071	71010,71018
63	52109,51135	52058	51010,51022

6.0 APPENDICES

Appendix A - Element III Vehicles

Appendix B - Test Results for 3-month Retest Vehicles

Appendix C - Test Results for 2-month Retest Vehicles

Appendix D - Test Results for 1-month Retest Vehicles

APPENDIX A - LISTING OF VEHICLES

Legend

EPA NO	-	1st Digit Represents Vehicle Model Year
VEH IDENT NO	-	Vehicle Identification Number (VIN)
MKE	-	Vehicle Make Code (see next page)
MDL	-	Vehicle Model Code (see next page)
ENG FAM	-	Engine Family
CID	-	Engine Displacement in Cubic Inches
C	-	Number of Cylinders
T	-	Transmission Type (1 = Manual, 2 = Auto)
F	-	Fuel Metering System (1 = 1-barrel carb, 2 = 2-barrel carb, 3 = 4-barrel carb, 4 = CVCC (Honda) 5 = Fuel Injection)
EI	-	Electronic Ignition (1 = Yes, 2 = No)
CA	-	Canister Evap. Control (1 = Yes, 2 = No)
CE	-	Crankcase Evap. Control (1 = Yes, 2 = No)
AC	-	Air Conditioning (1 = Yes, 2 = No)
EM	-	Engine Modification (1 = Yes, 2 = No)
AS	-	AIR System (1 = Yes, 2 = No)
CC	-	Catalytic System (1 = Yes, 2 = No)
ES	-	EGR System (1 = Yes, 2 = No)
TAG	-	1st Letter of License (V = Vanity Plate)

MAKE CODES

CODE	MANUFACTURER	CODE	MANUFACTURER	CODE	MANUFACTURER
010	AMC	041	Buick	260	Honda
021	Chrysler	042	Cadillac	380	Datsun
022	Dodge	043	Chevrolet	570	Toyota
023	Plymouth	044	Oldsmobile	590	Volkswagen
031	Ford	045	Pontiac	600	Volvo
033	Mercury			640	Audi

MODEL CODES

CODE	NAME	CODE	NAME	CODE	NAME
108	Hornet	349	Pinto	462	LeSabre
112	Pacer	372	Thunderbird	464	Regal
210	Cordoba	373	Torino	472	Caprice
224	Colt	380	B210	478	Impala
225	Coronet	392	Monarch	481	Laguna
227	Dart	394	Montego	482	Malibu
254	Aspen	414	Apollo	483	Monte Carlo
261	Civic	417	Century	486	Nova
262	Civic CVCC	418	Electra	488	Vega
272	Arrow	425	Deville	489	Chevette
275	Fury	429	Seville	494	Cutlass Supreme
285	Valiant	439	Camaro	570	Corolla
287	Volare	443	Custom Cruiser	571	Corolla Wagon
313	Ford Wagon	444	Cutlass	572	Celica
316	Elite	446	Delta 88	573	Corona
342	Granada	448	Ninety Eight	590	Beetle
343	Gran Torino	452	Bonneville	591	Rabbit
345	LTD	453	Catalina	592	Dasher
347	Maverick	457	Grand Prix	594	Scirocco
348	Mustang	459	Grand Ville	600	240
				640	Fox
				641	Fox Wagon

APPENDIX A

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
51000	5T12Y127115	031	349	00002.3A	140	4	1	2	1	1	2	2	2	1	2	1	B
51001	1152036976	590	590	00000001	097	4	1	5	2	1	2	2	2	2	2	1	B
51002	5J63H130378	031	345	351M4001	351	8	2	2	1	1	2	1	2	1	1	1	B
51003	5K92L110770	031	347	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	B
51004	1H57H5Z442994	043	483	0010J23	350	8	2	2	1	1	2	1	2	2	1	1	B
51005	TE1008020	570	570	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	B
51006	5K91F123579	031	347	0302ACMF	302	8	2	2	1	1	2	1	2	1	2	1	B
51007	5X11Z114645	031	349	02.82CMF	171	6	2	2	1	1	2	2	2	1	1	1	B
51008	HLB210547384	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	B
51009	RT119003881	570	573	0000020R	133	4	1	2	2	1	2	2	2	2	1	1	B
51010	6D47S5Q160139	042	425	0060V43	500	8	2	3	1	1	2	1	2	2	1	1	B
51011	1D29H5Z442511	043	482	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	B
51012	1D35H5Z412113	043	482	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	B
51013	3J57K5M235735	044	494	00030543	350	8	2	3	1	1	2	1	2	2	1	1	B
51014	5H42H170757	031	373	351M4001	351	8	2	2	1	1	2	2	2	1	1	1	B
51015	RK41G5A145408	023	275	00FLA26C	318	8	2	2	1	1	2	1	2	2	1	1	B
51016	1L69H5J127818	043	478	00010J23	350	8	2	2	1	1	2	2	2	2	1	1	C
51017	TE380009163	570	571	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	C
51018	SGA1009019	260	262	00000ED1	091	4	1	4	2	1	2	2	2	2	2	2	B
51019	5G21S168856	031	316	351M4001	400	8	2	2	1	1	2	1	2	1	1	1	C
51020	TE31030837	570	570	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	C
51021	A5A667A210855	010	112	0000000I	258	6	2	1	1	1	2	1	2	1	2	1	C
51022	6D47S5Q171999	042	425	00060V43	500	8	2	3	1	1	2	1	2	2	1	1	C
51023	1L39H5J200190	043	478	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	C
51024	HLB210083953	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	C
51051	HLB210520597	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	C
51052	2P35S5X151382	045	452	00020K43	400	8	2	3	1	1	2	1	2	2	1	1	C
51053	RP23G5G121572	023	275	00FLA2PC	318	8	2	2	1	1	2	1	2	2	1	1	C
51054	4P39J5X119214	041	462	00040J43	350	8	2	3	1	1	2	1	2	2	1	1	C
51055	RH23G5A142050	023	275	00FLA26C	318	8	2	2	1	1	2	1	2	2	1	1	C
51056	RT119003885	570	573	0000020R	133	4	1	2	2	1	2	1	2	1	2	1	D
51057	5H08H544871	033	394	351W1CET	351	8	2	2	1	1	2	1	2	1	1	1	D
51058	1152032884	590	590	00000001	097	4	1	5	2	1	2	2	2	2	2	1	E
51059	5W82F189828	031	342	03021CMF	302	8	2	2	1	1	2	1	2	1	1	1	D
51060	1152033875	590	590	00000001	097	4	1	5	2	1	2	2	2	2	2	2	D
51061	HLB210575197	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	E
51062	RT119004555	570	573	0000020R	133	4	1	2	2	1	2	2	2	2	1	1	E
51063	5J64S135615	031	345	351M4001	400	8	2	2	1	1	2	1	2	1	1	1	E
51064	2K57S5P229798	045	457	00020K43	400	8	2	3	1	1	2	1	2	2	1	1	E
51065	HLB210577030	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	E

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
51066	5W35F530581	033	392	03021CMF	302	8	2	2	1	1	2	2	2	1	1	1	E
51067	1V11B54182656	043	488	00010C21	140	4	1	2	1	1	2	2	2	2	1	1	D
51068	5J63H147638	031	345	351M4001	351	8	2	2	1	1	2	1	2	1	1	1	E
51069	TE38011650	570	571	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	E
51070	SBC3306658	260	261	000075EB	076	4	1	2	2	1	2	2	2	1	2	2	E
51071	5J68S139476	031	345	351M4001	400	8	2	2	1	1	2	1	2	1	1	1	E
51073	1L39H5J225888	043	478	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	F
51101	TE31039506	570	570	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	C
51102	5R12Y134042	031	349	00002.3A	140	4	1	2	1	1	2	1	2	1	2	1	D
51103	3J45K5R134746	044	494	00030J43	350	8	2	3	1	1	2	1	2	2	1	1	D
51104	1L47H5J202179	043	478	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	C
51105	SBA3311080	260	261	000000EB	076	4	1	2	2	1	2	2	2	1	2	2	D
51106	SBC3316870	260	261	000000EB	076	4	1	2	2	1	2	2	2	1	2	2	D
51107	1L47H5J174330	043	478	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	C
51108	RT119005584	570	573	0000020R	133	4	1	2	2	1	2	2	2	2	1	1	E
51109	5R12Z130545	031	349	02.82CMF	171	6	2	2	1	1	2	2	2	1	1	1	E
51110	1Y69D5L152243	043	486	00010F13	250	6	2	1	1	1	2	1	2	2	1	1	E
51111	2L57S5X113522	045	453	00020K43	400	8	2	3	1	1	2	1	2	2	1	1	E
51112	3R45T5X128591	044	443	00030S43	455	8	2	3	1	1	2	1	2	2	1	1	E
51113	SGE1024684	260	262	00000ED1	091	4	1	4	2	1	2	2	2	2	2	2	E
51114	5G21H191137	031	316	351M4001	351	8	2	2	1	1	2	1	2	1	1	1	E
51115	5W82L216827	031	342	02501CEF	250	6	2	1	1	1	2	1	2	1	1	1	F
51116	5P63H110173	031	345	351M400E	351	8	2	2	1	1	2	1	1	1	1	1	E
51117	1H57H5Z447358	043	483	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	F
51118	SS22K5R279335	021	210	00FLA2LC	360	8	2	2	1	1	2	1	2	2	1	1	E
51119	5W81L218338	031	342	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	F
51120	HLB210090800	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	F
51121	1Q87H5N604555	043	439	00010J23	350	8	2	2	1	1	2	2	2	2	1	1	F
51122	5P74S109996	031	313	351M1CET	400	8	2	2	1	1	2	2	2	1	1	1	E
51123	TE38017994	570	571	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	F
51124	A5A667A295619	010	112	0000000I	258	6	2	1	1	1	2	1	2	2	2	1	F
51125	5W81F203487	031	342	03021CMF	302	8	2	2	1	1	2	1	2	1	1	1	F
51126	5G21S210307	031	316	351M4001	400	8	2	2	1	1	2	1	2	1	1	1	F
51127	HLB210581230	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	F
51128	RH41G5A159271	023	275	00FLA26C	318	8	2	2	1	1	2	1	2	2	1	1	E
51129	5W37F518032	033	392	03021CMF	302	8	2	2	1	1	2	2	2	1	1	1	G
51130	TE38004994	570	571	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	E
51131	1352140437	590	590	00000001	097	4	1	5	2	1	2	2	2	2	2	1	E
51132	HLB210094342	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	E
51133	8452047591	640	640	000080F1	097	4	1	5	2	1	2	2	1	2	2	1	E

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
51134	5W82F218331	031	342	03021CMF	302	8	2	2	1	1	2	1	2	1	1	1	G
51135	6D49S5Q285262	042	425	00060V43	500	8	2	3	1	1	2	1	2	2	1	1	G
52001	1X69D5L136032	043	486	00010F13	250	6	2	1	1	1	2	2	2	2	1	1	B
52002	VH29C5G114796	023	285	00FRGCII	225	6	2	1	1	1	2	2	2	2	1	1	B
52003	SS22K5R185621	021	210	00FLA2LC	360	8	2	2	1	1	2	1	2	2	1	1	B
52004	5X11Y151225	031	349	00002.3A	140	4	2	2	1	1	2	2	2	1	2	1	B
52005	8552022200	640	640	000080F1	097	4	1	5	2	1	2	1	1	2	2	1	B
52006	2P45W5X128219	045	452	0020S43E	455	8	2	3	1	1	2	1	2	2	1	1	B
52007	A5A087A121573	010	108	0000000I	258	6	2	1	1	1	2	2	2	2	2	1	B
52008	4B17C5K112321	041	414	00040E23	231	6	2	2	1	1	2	1	2	2	1	1	B
52009	5K92F109618	031	347	03021CMF	302	8	2	2	1	1	2	1	2	1	1	1	B
52010	2K57S5P230694	045	457	00GM2K43	400	8	2	3	1	1	2	1	2	2	1	1	C
52011	1V15B5C128049	043	488	00010C21	140	4	2	2	1	1	2	2	2	2	1	1	B
52012	8452042048	640	640	000080F1	097	4	1	5	2	1	2	2	1	2	2	1	B
52013	5K92L139254	031	347	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	B
52014	4B27C5L109359	041	414	00041E23	231	6	2	2	1	1	2	2	2	2	1	1	B
52015	HLB210549135	380	380	0000N081	085	4	1	2	2	1	2	2	2	1	2	1	C
52016	RT105003412	570	573	0000020R	133	4	1	2	2	1	2	2	2	1	2	1	B
52017	5K91L120384	031	347	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	C
52018	1V15B5U171730	043	488	00010C21	140	4	1	2	1	1	2	2	2	2	1	1	C
52019	VH29C5B207786	023	285	00FRGC11	225	6	2	1	1	1	2	1	2	2	1	1	C
52020	3J57K5M165158	044	494	00030J43	350	8	2	3	1	1	2	1	2	2	1	1	C
52021	2K57S5P174627	045	457	00020K43	400	8	2	3	1	1	2	1	2	2	1	1	C
52051	8552047509	640	640	000080F1	097	4	1	5	2	1	2	1	2	2	2	1	C
52052	1X37T5H430143	041	418	00040543	455	8	2	3	1	1	2	1	2	2	1	1	C
52053	1Y69D5L138300	043	486	00010F13	250	6	2	1	1	1	2	1	2	2	1	1	C
52054	1D37H5Z415706	043	482	00010J23	350	8	2	2	1	1	2	1	2	2	1	1	C
52055	3J35K5R134179	044	494	00031J43	350	8	2	3	1	1	2	1	2	2	1	1	D
52056	RH41K5A180009	023	275	00FLA2LC	360	8	2	2	1	1	2	2	1	2	1	1	D
52057	LH41C5R195114	022	227	00FR6CII	225	6	2	1	1	1	2	2	1	2	1	1	C
52058	6D47S5Q219702	042	425	00060V43	500	8	2	3	1	1	2	1	2	2	1	1	D
52059	5X11Z114643	031	349	02.82CMF	171	6	2	2	1	1	2	2	2	1	1	1	C
52060	5R04Y134626	031	348	00002.3A	140	4	1	2	1	1	2	2	2	1	2	1	D
52061	TE31043976	570	570	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	D
52062	4B27C5L114449	041	414	00040E23	231	6	2	2	1	1	2	2	2	2	1	1	E
52063	SS22K5R245016	021	210	00FLA2LC	360	8	2	2	1	1	2	2	2	2	1	1	D
52064	TE31035775	570	570	000002TC	097	4	1	2	2	1	2	2	2	1	2	2	D
52065	VH41C5R250128	023	285	00FR6CII	225	6	2	1	1	1	2	2	2	2	1	1	E
52066	2R47W5P205865	045	459	GM20543E	455	8	2	3	1	1	2	1	2	2	1	1	D
52067	5R12Z130098	031	349	02.82CMF	171	6	2	2	1	1	2	1	2	1	1	1	E

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	IE	CA	CE	AC	EM	AS	CC	ES	TAG
52068	1C35H5Z445104	043	482	00010J23	350	8	2	2	1	1	2	2	2	2	1	1	F
52069	4B17C5L114905	041	414	00040E23	231	6	2	2	1	1	2	1	2	2	1	1	E
52070	1X69D5L148067	043	486	00010F13	250	6	2	1	1	1	2	2	2	2	1	1	F
52071	A5A667A306943	010	112	0000000I	256	6	2	1	1	1	2	1	2	2	2	1	F
52072	3352901292	640	641	000080F1	097	4	1	5	2	1	2	2	2	2	2	1	E
52101	1X27D5L143908	043	486	00010F13	250	6	2	1	1	1	2	2	2	2	1	1	D
52102	5X11Y180785	031	349	00002.3A	140	4	2	2	1	1	2	2	2	1	2	1	C
52103	WP23K5G155283	022	225	00FLA2LC	360	8	2	2	1	1	2	1	2	2	1	1	C
52104	1V11B5C101947	043	488	00010C21	140	4	1	2	1	1	2	2	2	2	1	1	C
52105	4B17C5L113102	041	414	00040E23	231	6	2	2	1	1	2	1	2	2	1	1	D
52106	2R49WSP188118	045	459	351M400B	455	8	2	3	1	1	2	1	2	2	1	1	D
52107	5R04Z138307	031	348	02.82CMF	171	6	2	2	1	1	2	1	2	1	1	1	D
52108	A5A667E250610	010	112	0000000I	232	6	2	1	1	1	2	2	2	2	2	1	D
52109	6D47S5Q251445	042	425	00060V43	500	8	2	3	1	1	2	1	2	2	1	1	E
52110	1V05B5U204705	043	488	00010C21	140	4	1	2	1	1	2	2	2	2	1	1	E
52111	VH41C5B278103	023	285	00FRGCII	225	6	2	1	1	1	2	2	2	2	1	1	E
52112	WH23G5G155158	022	225	00FLA26C	318	8	2	2	1	1	2	1	2	2	1	1	D
61000	1D37Q6Z423998	043	482	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	B
61001	6R11Y102851	031	349	02.31CEF	140	4	2	2	1	1	2	2	2	1	1	1	B
61002	1Y27Q6L129662	043	486	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	B
61003	1H57Q62426097	043	483	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	B
61004	1Y69Q6K114914	043	486	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	C
61005	VL41C6G166830	023	285	FD22515S	225	6	2	1	1	1	2	2	2	2	1	1	B
61006	HP29G6B118559	023	287	FD31825S	318	8	2	2	1	1	2	1	2	2	1	1	B
61051	1X69Q6L136972	043	486	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	D
61052	1X69Q6K118319	043	486	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	D
61053	6S69R6Q506766	042	429	000060J0	350	8	2	5	1	1	2	1	2	1	1	1	C
61054	1E37Q6Z400422	043	481	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	C
61055	1H57Q6Z450438	043	483	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	D
61056	6X12Y202478	031	349	02.31CEF	140	4	1	2	1	1	2	1	2	2	1	1	D
61057	6W83L234977	031	342	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	D
61058	HL41C6F194843	023	287	FD22515S	225	6	2	1	1	1	2	2	2	2	1	1	D
61059	HP29G6B295772	023	287	FA3182PS	318	8	2	2	1	1	2	2	2	1	2	1	E
61060	6A40H130623	031	373	351WB1CE	351	8	2	2	1	1	2	2	1	1	1	1	D
61061	6W81L195666	031	342	02501CEF	250	6	2	1	1	1	2	1	2	1	1	1	D
61062	6G21H190211	031	316	351M4001	351	8	2	2	1	1	2	1	2	1	1	1	D
61101	6X10Y135900	031	349	02.31CEF	140	4	1	2	1	1	2	2	2	1	1	1	C
61102	6R02Y137100	031	348	02.31CEF	140	4	2	2	1	1	2	2	2	1	1	1	D
61103	6W82L222255	031	342	02501CEF	250	6	2	1	1	1	2	2	2	1	1	1	D
61104	HP29G6B338118	023	287	FD31825S	318	8	2	2	1	1	2	2	2	2	1	1	E

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
61105	1B08E6Y240047	043	489	000010W1	098	4	2	1	1	1	2	2	2	2	1	1	F
61106	6H42H174382	031	373	351M4002	351	8	2	2	1	1	2	1	2	1	1	1	D
61107	1D37Q6Z457556	043	482	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	F
71000	SGC3003721	260	262	00000ED2	091	4	1	4	2	1	2	2	2	2	2	2	B
71001	HH45G7G144824	023	287	0FD3182C	318	8	2	2	1	1	2	1	2	1	1	1	B
71002	HLB210823065	380	380	000A140F	085	4	1	2	2	1	2	2	2	1	2	1	B
71003	RA29077128	570	572	0020R(F)	133	4	1	2	2	1	2	2	2	1	2	1	B
71004	7P745132107	031	313	351M400B	400	8	2	2	1	1	2	1	2	1	1	1	B
71005	2J57Y7P220042	045	457	00720S2E	301	8	2	2	1	1	2	1	2	2	1	1	B
71006	6S69R7Q466688	042	429	0076oJOU	350	8	2	5	1	1	2	1	2	1	1	1	B
71007	7P64H134045	031	345	351M400B	351	8	2	2	1	1	2	1	2	1	1	1	B
71008	1773225878	590	591	00000037	097	4	1	1	2	1	2	1	1	2	2	1	B
71009	1N69U7C122715	043	472	000710Y2	305	8	2	2	1	1	2	1	2	2	1	1	B
71010	RT105037986	570	573	0020R(F)	134	4	1	2	2	1	2	1	2	1	2	1	B
71011	7X11Y102902	031	349	E2.3B1CV	140	4	1	2	1	1	2	2	2	1	1	1	B
71012	1D37U7Z418776	043	482	000710Y2	305	8	2	2	1	1	2	1	2	2	1	1	B
71013	1L69U7C143488	043	478	000710Y2	305	8	2	2	1	1	2	1	2	2	1	1	B
71014	SBC5012139	260	261	000077EB	076	4	1	2	2	1	2	2	2	1	2	2	B
71015	2J57Y7P247003	045	457	00720S2E	301	8	2	2	1	1	2	1	2	2	1	1	B
71016	RA24067673	570	572	0020R(F)	133	4	1	2	2	1	2	2	2	1	2	1	B
71017	7T11Y120414	031	349	E2.3B1CV	140	4	1	2	1	1	2	2	2	1	1	1	B
71018	RT119042209	570	573	0020R(F)	134	4	1	2	2	1	2	2	2	1	2	1	C
71019	4J57C7Z140498	041	464	000740E2	231	6	2	2	1	1	2	1	2	2	1	1	B
71020	1B08E7Y122880	043	489	000710W1	085	4	2	1	1	1	2	2	2	1	1	1	C
71021	1H57L7Z454883	043	483	000710J4	350	8	2	3	1	1	2	1	2	2	1	1	B
71022	SBC5013569	260	261	000000EB	076	4	1	2	2	1	2	2	2	1	2	2	B
71051	SGC3003323	260	262	00000ED2	091	4	1	4	2	1	2	2	2	2	2	2	C
71052	7F03Y126636	031	348	E2.3B1CV	140	4	1	2	1	1	2	2	2	1	1	1	B
71053	SGC3508500	260	262	00000ED2	091	4	1	4	2	1	2	2	2	2	2	2	C
71054	1X69D7L135243	043	486	00710F1H	250	6	2	1	1	1	2	2	2	2	1	1	C
71055	2L69Y7X124022	045	453	00720S2E	301	8	2	2	1	1	2	1	2	2	1	1	D
71056	4D29C7Z148613	041	417	000740E2	231	6	2	2	1	1	2	1	2	2	1	1	D
71057	1H57L7K512860	043	483	000710J4	350	8	2	3	1	1	2	1	2	2	1	1	D
71058	1L35L7J256613	043	478	000710J4	350	8	2	3	1	1	2	1	2	2	1	1	D
71059	7J64S171280	031	345	351M400B	400	8	2	2	1	1	2	1	2	1	1	1	D
71060	7P24U78703317	023	272	00004G5F	121	4	1	2	1	1	2	1	2	1	1	1	C
71061	7J64S168464	031	345	351M400B	400	8	2	2	1	1	2	1	2	1	1	1	D
71062	VC24445H12056	600	600	000004FA	130	4	1	5	1	1	2	2	2	2	1	1	D
71063	3M57R7M376062	044	494	00730M4U	350	8	2	3	1	1	2	1	2	2	1	1	E
71064	HH45G7B329731	023	287	0FD3182C	318	8	2	2	1	1	2	1	2	1	1	1	D

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
71065	3N69K7C108716	044	446	0730P4UY	403	8	2	3	1	1	2	1	2	2	1	1	E
71066	6S69R7Q473980	042	429	00760J0U	350	8	2	5	1	1	2	1	2	1	1	1	E
71067	HLB210882383	380	380	000A140F	085	4	1	2	2	1	2	2	2	1	2	1	E
71068	7X11Y184838	031	349	E2.3B1CV	140	4	1	2	1	1	2	2	2	1	1	1	E
71069	HLB210212987	380	380	000A141F	085	4	1	2	2	1	2	2	2	1	2	1	E
71070	1773328934	590	591	00000037	097	4	1	1	2	1	2	2	1	2	2	1	E
71071	RT105046682	570	573	0020R(F)	134	4	1	2	2	1	2	2	2	1	2	1	E
71072	1D37U7Z477755	043	482	000710Y2	305	8	2	2	1	1	2	1	2	2	1	1	E
71073	RA29099643	570	572	0020R(F)	133	4	1	2	2	1	2	2	2	1	2	1	D
71074	7X91L143336	031	347	F250A1CV	250	6	2	1	1	1	2	2	2	2	1	1	D
71075	VC24445H12025	600	600	000004FA	130	4	1	5	1	1	2	2	2	2	1	1	E
71076	7W84F208326	031	342	F302D1CV	302	8	2	2	1	1	2	1	2	2	1	1	E
71101	HP29D7B222041	023	287	0FD2252C	225	6	2	2	1	1	2	2	2	1	1	1	C
71102	7J87S158549	031	372	351MD2CV	400	8	2	2	1	1	2	1	2	1	1	1	C
71103	6S69R7Q479420	042	429	00760J0U	350	8	2	5	1	1	2	1	2	1	1	1	D
71104	2J57Y7P211608	045	457	00720S2E	301	8	2	2	1	1	2	1	2	2	1	1	C
71105	7X12Y138986	031	349	E2.3A1CV	140	4	2	2	1	1	2	2	2	2	1	1	C
71106	RA29087005	570	572	0020R(F)	133	4	1	2	2	1	2	1	2	1	2	1	C
71107	RT119045606	570	573	0020R(F)	134	4	1	2	2	1	2	2	2	1	2	1	D
71109	6H21K71401467	022	224	00004G3F	098	4	1	2	2	1	2	2	2	1	2	1	D
71110	HLB210317279	380	380	000A140F	085	4	1	2	2	1	2	2	2	1	2	1	D
71111	RA24077389	570	572	0020R(F)	133	4	1	2	2	1	2	2	1	1	2	1	E
71112	7W34F554120	033	392	F302A1CV	302	8	2	2	1	1	2	1	2	1	1	1	E
71113	3N69K7C106427	044	446	0730P4UY	403	8	2	3	1	1	2	1	2	2	1	1	E
71114	1H57U7Z482446	043	483	000710Y2	305	8	2	2	1	1	2	2	2	2	1	1	E
71115	1H57L7K509582	043	483	000710J4	350	8	2	3	1	1	2	1	2	2	1	1	E
71116	RT105049128	570	573	0020R(F)	134	4	1	2	2	1	2	2	2	1	2	1	E
71117	HLB210206050	380	380	000A140F	085	4	1	2	1	1	2	2	2	1	2	1	E
71118	7J87H173826	031	372	F351WC2C	351	8	2	2	1	1	2	1	2	2	1	1	E
71119	1773396892	590	591	00000037	097	4	1	1	2	1	2	2	1	1	2	1	E
71120	7W34L525969	033	392	F250B1CV	250	6	2	1	1	1	2	2	2	2	1	1	F
71121	6S69R7Q476796	042	429	00760J0U	350	8	2	5	1	1	2	1	2	1	1	1	E
71122	1172071997	590	590	00000001	097	4	1	5	2	1	2	2	1	2	2	1	F
71123	1X69D7W179762	043	486	00710F1H	250	6	2	1	1	1	2	2	2	2	1	1	E
72000	VC24445H11980	600	600	000004FA	130	4	1	5	1	1	2	2	2	2	1	1	B
72001	HL45D7G130778	023	287	0FD2252C	225	6	2	2	1	1	2	2	2	1	1	1	B
72002	7K92F125024	031	347	F302D1CV	302	8	2	2	1	1	2	1	2	2	1	1	B
72003	1773136765	590	591	00000046	097	4	1	1	2	1	2	2	2	1	1	1	B
72004	3J29R7M262826	044	494	0073OM4U	350	8	2	3	1	1	2	1	2	2	1	1	B
72005	HL45D7B275979	023	287	0FD2252C	225	6	2	2	1	1	2	2	2	1	1	1	B

APPENDIX A CONT'D
ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
72006	7W83F139127	031	342	F302D1CV	302	8	2	2	1	1	2	2	2	2	1	1	B
72007	7K91L127319	031	347	F250A1CV	250	6	2	1	1	1	2	2	2	1	1	1	B
72008	6H41K72700060	022	224	00004G3F	098	4	1	2	2	1	2	2	2	1	2	1	B
72009	3X37K7M283758	044	448	0730P4UY	403	8	2	3	1	1	2	1	2	2	1	1	B
72010	1B08E7Y107296	043	489	000710W1	098	4	1	1	1	1	2	2	2	2	1	1	C
72011	1773222524	590	591	00000037	097	4	1	1	2	1	2	2	1	2	2	1	B
72012	1B08E7Y105463	043	489	000710W1	098	4	2	1	1	1	2	2	2	2	1	1	C
72013	3G37C7M297625	044	444	000740E2	231	6	2	2	1	1	2	1	2	2	1	1	C
72014	1L35L7C144460	043	478	000710J4	350	8	2	3	1	1	2	1	2	2	1	1	C
72015	1QS7D7L578229	043	439	00710F1H	250	6	2	1	1	1	2	2	2	2	1	1	C
72016	HL45G7G130112	023	287	0FD3182C	318	8	2	2	1	1	2	2	2	1	1	1	C
72051	1N69U7C152377	043	472	000710Y2	305	8	2	2	1	1	2	2	2	2	1	1	C
72052	1773300260	590	591	00000037	097	4	1	1	2	1	2	2	1	2	2	1	C
72053	1X17D7W163402	043	486	00710F1H	250	6	2	1	1	1	2	2	2	2	1	1	C
72054	HP41D7G129204	023	287	0FD2252C	225	6	2	2	1	1	2	1	2	1	1	1	C
72055	7J87H146339	031	372	F351WC2C	351	8	2	2	1	1	2	2	2	2	1	1	C
72056	3M57R7M324107	044	494	00730M4U	350	8	2	3	1	1	2	1	2	2	1	1	D
72057	1B08E7Y106581	043	489	000710W1	098	4	2	1	1	1	2	2	2	2	1	1	C
72058	7P24U78705584	023	272	00004G5F	121	4	1	2	2	1	2	2	2	1	2	1	E
72059	HH45D7B332753	023	287	0FD2252C	225	6	2	2	1	1	2	2	2	1	1	1	E
72060	7W38F534502	033	392	F302D1CV	302	8	2	2	1	1	2	1	2	2	1	1	E
72061	1773336098	590	591	00000037	097	4	1	1	2	1	2	2	1	2	2	1	D
72062	4X69K7H573556	041	418	0730P4UY	403	8	2	3	1	1	2	1	2	2	1	1	E
72063	7J87H165295	031	372	F351WC2C	351	8	2	2	1	1	2	1	2	2	1	1	D
72064	7W82L221073	031	342	F250A1CV	250	6	2	1	1	1	2	1	2	2	1	1	E
72065	4D29C7Z141803	041	417	000740E2	231	6	2	2	1	1	2	1	2	2	1	1	E
72101	6H41K72700196	022	224	00004G3F	098	4	1	2	2	1	2	2	2	1	2	1	C
72102	3J57R7M297235	044	494	00730M4U	350	8	2	3	1	1	2	1	2	2	1	1	D
72103	3G37C7M312576	044	444	000740E2	231	8	2	2	1	1	2	1	2	2	1	1	C
72104	3272096841	590	592	000080F1	097	4	1	5	2	1	2	2	1	2	2	1	C
72105	4X69K7H524970	041	418	0730P4UY	403	8	2	3	1	1	2	1	2	2	1	1	D
72106	7J87S110318	031	372	351M400B	400	8	2	2	1	1	2	1	2	1	1	1	C
72107	1N69U7C152623	043	472	000710Y2	305	8	2	2	1	1	2	1	2	2	1	1	D
72108	VC24245H11077	600	600	000004FA	130	4	1	5	1	1	2	2	2	2	1	1	D
72109	2L69Y7X141939	045	453	00720S2E	301	8	2	2	1	1	2	1	2	2	1	1	E
72110	3H35R7R193536	044	494	00730M4U	350	8	2	3	1	1	2	1	2	2	1	1	E
72111	NH45G7G180913	022	254	0FD3182C	318	8	2	2	1	1	2	2	2	1	1	1	E
72112	7J63H182076	031	345	F351WC2C	351	8	2	2	1	1	2	1	2	2	1	1	E
72113	HH45G7B354243	023	287	0FD3182C	318	8	2	2	1	1	2	1	2	1	1	1	E
72114	VC24245H11122	600	600	000004FA	130	4	1	5	1	1	2	1	2	2	1	1	E

APPENDIX A CONT'D

ELEMENT III VEHICLES

EPA NO	VEH IDENT NO	MKE	MDL	ENG FMLY	CID	C	T	F	EI	CA	CE	AC	EM	AS	CC	ES	TAG
72115	1X17D7L138953	043	486	00710F1H	250	6	2	1	1	1	2	2	2	2	1	1	E
72116	7W82L244308	031	342	F250B1CV	250	6	2	1	1	1	2	2	2	2	1	1	F
72117	53720596737	590	594	00000037	097	4	1	1	2	1	2	2	1	2	2	1	F
62000	HH45G6B188468	023	287	FD31825S	318	8	2	2	1	1	2	1	2	2	1	2	B
62001	6X10Y159527	031	349	02.3ICEF	140	4	1	2	1	1	2	2	2	1	1	1	B
62002	6R12Y116323	031	349	02.3ICEF	140	4	1	2	1	1	2	2	2	1	1	1	C
62003	VL41C6F139005	023	285	FD22515S	225	6	2	1	1	1	2	1	2	2	1	1	B
62101	1X27Q67128487	043	486	000010G2	305	8	2	2	1	1	2	1	2	2	1	1	C
62102	HH41G6F149932	023	287	FD31825S	318	8	2	2	1	1	2	1	2	2	1	1	C
62103	HP29C6B229067	023	287	FD22515S	225	6	2	2	1	1	2	1	2	2	1	1	D
62104	6G30H184782	031	373	351M4001	351	8	2	2	1	1	2	1	2	1	1	1	D
62105	VL29C6G197667	023	285	FD22515S	225	6	2	2	1	1	2	1	2	2	1	1	E

APPENDIX B

TEST RESULTS FOR 3-MONTH RETEST VEHICLES

Legend

Idle Test Results

1st	-	Initial Idle Test	°F	-	Temperature in °F
2500	-	High Idle Test @ 2500 RPM	RH	-	Relative Humidity
2nd	-	Second Idle Test	BARO	-	Barometric Pressure
S	-	Pass/Fail Status	QUEUE TIME	-	Time Waiting in Line Prior to Test

FTP & HFET Results

CT	-	Cold Transient Portion of FTP
CS	-	Cold Stabilized Portion of FTP
HT	-	Hot Transient Portion of FTP
COMP (GPM)	-	Composite results for FTP in grams per mile
NOXC	-	Oxide of Nitrogen Emissions Corrected for Humidity
MPG	-	Miles per gallon calculated by the Carbon Balance Method
ODOM	-	Odometer Reading

FED Three-Mode Test Results

HI	-	52 MPH Test
LOW	-	25 MPH Test
HC-L	-	Total Hydrocarbons in ppm (Using the Laboratory Analyzer)
CO-L	-	Carbon Monoxide in Percent (Using the Laboratory Analyzer)
NOX-L	-	Oxides of Nitrogen in ppm (Using the Laboratory Analyzer)
HC-G	-	Hydrocarbons in ppm Hexane (Using the Garage Analyzer)
CO-G	-	Carbon Monoxide in Percent (Using the Garage Analyzer)

Diagnostic Checks

Idle Speed and Propane Idle Cehck readings are in RPM

Dwell, Timing, Mech. Advance and Total Advance readings are in degrees of crankshaft rotation from Top Dead Center (+ before, - after)

Common Abbreviations

FI	-	Fuel Injection	N/A	-	Not Applicable
PERF	-	Performance	CK	-	Check
ENG	-	Engine	MECH	-	Mechanical

APPENDIX B

EPA NO.: 51000 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	85	80	105	P	60	45	65	P
DEQ CO (%)	1.0	0.9	0.6	P	1.2	0.7	1.1	P
DEQ RPM	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	40 Minutes				10 Minutes			
HTS HC (ppm)	90	30	50	-	130	30	120	-
HTS CO (%)	1.1	0.2	1.0	-	0.9	0.1	1.2	-
HTS NOX (ppm)	20	120	20	-	50	100	50	-
HTS RPM	650	-	710	-	630	-	690	-

	°F	RH	BARO	°F	RH	BARO
DEQ	38	70	30.10	56	67	30.18
HTS	73	29	30.01	68	54	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(755)	650
DWELL	N/A		N/A
TIMING	+07	(+06)	+07
MECH ADVANCE	18	(17)	19
TOTAL ADVANCE	25	(42)	26
PROPANE IDLE CK	10		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Total Adv. @ 2500
- Spark Plug Firing Volt.
- Cyl. Power Dist.
- Idle Speed

- Idle Speed
- Air Filters - Cond.
- Total Adv. @ 2500
- Spark Plug Firing Volt.

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.77	126.64	1655.6	09.70	08.23	
	CS (grams)	004.14	084.53	1792.0	06.12	05.20	
DATE:1-24-79	HT (grams)	003.74	055.49	1426.2	09.24	07.87	
ODOM:51027	COMP (GPM)	001.23	022.75	0442.2	02.07	01.76	18.4
	HFET (GPM)	000.23	003.10	0317.3	02.75		27.47
RETEST	FTP CT (grams)	012.72	130.91	1665.2	11.29	09.99	
	CS (grams)	004.96	083.07	1699.1	06.43	05.70	
DATE:4-25-79	HT (grams)	004.45	053.88	1365.0	10.50	09.24	
ODOM:54166	COMP (GPM)	001.73	022.68	0425.8	02.30	02.03	19.0
	HFET (GPM)	000.40	003.38	0313.6	03.02		27.70

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0247.2	00.1	0852.3	0020	00.1
LOW	0739.9	00.5	0425.2	0040	00.4
IDLE	0935.7	01.4	0058.8	0060	01.2
HI	0854.3	00.1	1065.2	0100	00.2
LOW	0915.5	00.5	0432.6	0100	00.6
IDLE	1044.0	01.3	0055.4	0110	01.2

EPA NO.51000

APPENDIX B

EPA NO.: 51001 MAKE/MODEL: VOLKSWAGON/BUG ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	100	340	P	95	30	120	P
DEQ CO (%)	0.4	1.1	0.1	P	0.7	0.1	0.6	P
DEQ RPM	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				15 Minutes			
HTS HC (ppm)	190	130	280	-	220	60	140	-
HTS CO (%)	1.6	0.4	2.4	-	1.0	0.5	1.0	-
HTS NOX (ppm)	100	250	120	-	100	230	100	-
HTS RPM	720	-	760	-	710	-	720	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	39	77	29.90		56	69	30.20	
HTS	67	44	29.80		65	56	30.10	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	720	(860)	660
DWELL	48	(47)	50
TIMING	-04	(-05)	-03
MECH ADVANCE	18	(10)	23
TOTAL ADVANCE	23	(17)	32
PROPANE IDLE CK	300		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	FADE	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS:
- Idle Speed
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Rotor Gap Volt.
- EGR

RETEST:
- Idle Speed
- Total Adv. @ 2500
- Mech. Adv. @ 2500

MAINTENANCE: None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.97	058.69	1131.3	17.77	14.16	
DATE: 1-30-79	CS (grams)	004.78	025.54	1356.3	10.48	08.35	
	HT (grams)	003.66	032.72	1077.5	17.20	13.70	
ODOM: 44114	COMP (GPM)	001.20	009.26	0327.6	03.72	02.97	25.6
	HFET (GPM)	000.56	003.79	0240.8	05.15		35.69
RETEST	FTP CT (grams)	005.49	050.21	1170.5	16.52	14.76	
DATE: 4-25-79	CS (grams)	005.06	033.02	1320.7	09.09	08.06	
	HT (grams)	003.75	027.98	1021.3	14.11	12.60	
ODOM: 45516	COMP (GPM)	001.27	009.41	0320.8	03.23	02.88	26.1
	HFET (GPM)	000.57	004.26	0230.0	04.32		37.19

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1413.1	00.4	2339.7	0100	00.4
LOW	1192.7	00.3	1279.3	0090	00.3
IDLE	1942.4	01.0	0151.0	0120	01.0
HI	1588.5	00.5	2397.4	0070	00.3
LOW	1374.3	00.3	1139.3	0080	00.3
IDLE	2077.9	00.8	0141.3	0110	00.6

EPA NO. 51001

APPENDIX B

EPA NO.: 51002 MAKE/MODEL: FORD/LTD ENG:351-2V TRANS:AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	220	170	125	P	115	55	100	P
DEQ CO (%)	0.1	1.5	0.3	P	0.1	0.1	0.1	P
DEQ RPM	650	-	650	P	725	-	725	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	260	60	340	-	160	30	170	-
HTS CO (%)	0.2	0.1	0.0	-	0.1	0.2	0.1	-
HTS NOX (ppm)	80	390	70	-	80	380	90	-
HTS RPM	660	-	670	-	690	-	680	-

	°F	RH	BARO	°F	RH	BARO
DEQ	39	78	29.85	57	65	30.15
HTS	60	48	29.87	68	50	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(650)	660
DWELL	N/A		N/A
TIMING	+07	(+06)	+13
MECH ADVANCE	15	(17)	24
TOTAL ADVANCE	42	(40)	34
PROPANE IDLE CK	70		180

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: EGR Plugged

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
EGR Plugged

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $10.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	035.56	301.64	2851.4	17.26	14.50		HI	0832.9	00.2	1456.8	0050	00.2
DATE: 1-25-79	CS (grams)	007.80	177.06	2983.7	09.41	07.86		LOW	0845.1	00.2	0372.9	0060	00.3
	HT (grams)	006.45	083.64	2412.0	17.27	14.60		IDLE	1741.4	01.1	0091.2	0130	01.2
ODOM: 96695	COMP (GPM)	003.57	047.26	0744.6	03.56	02.99	10.7						
	HFET (GPM)	000.71	006.42	0522.1	04.91		16.59						
RETEST	FTP CT (grams)	011.98	134.37	2864.5	20.80	18.36		HI	0725.8	00.1	2063.2	0040	00.1
DATE: 4-25-79	CS (grams)	004.59	038.28	3115.4	10.83	09.40		LOW	0315.9	00.1	0418.2	0030	00.1
	HT (grams)	007.17	050.80	2486.0	21.79	19.03		IDLE	0869.6	00.0	0098.3	0060	00.0
ODOM: 101419	COMP (GPM)	001.84	016.67	0768.6	04.29	03.75	11.1						
	HFET (GPM)	000.65	003.14	0543.0	06.27		16.12						

EPA NO. 51002

APPENDIX B

EPA NO.: 51003 MAKE/MODEL: FORD/MAVERICK ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	45	60	50	P				
DEQ CO (%)	1.0	0.2	0.9	P				
DEQ RPM	900	-	900	P				
DEQ QUEUE TIME	15 Minutes							
HTS HC (ppm)	120	50	100	-				
HTS CO (%)	1.9	0.2	1.6	-				
HTS NOX (ppm)	70	160	80	-				
HTS RPM	590	-	600	-				

No Retest - Vehicle dropped from program

	°F	RH	BARO	°F	RH	BARO
DEQ	40	61	29.85			
HTS	68	31	30.07			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	560	(600)
DWELL	N/A	
TIMING	+07	(+06)
MECH ADVANCE	19	(20)
TOTAL ADVANCE	26	(28)
PROPANE IDLE CK	0	

DRIVEABILITY	
ENG STARTING	HARD
TRANSMISSION	SHIFTS HARD
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	STUMBLES

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Fast Idle Speed

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.97	254.71	2419.2	08.88	07.16	
	CS (grams)	009.38	167.09	2490.8	06.68	05.39	
DATE: 1-29-79	HT (grams)	004.95	101.65	2105.4	08.60	06.93	
ODOM: 44273	COMP (GPM)	002.43	044.61	0630.8	02.05	01.66	12.5
	HFET (GPM)	000.27	009.08	0509.5	02.11		16.90
RETEST	FTP CT (grams)						
	CS (grams)						
DATE:	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0519.5	00.1	0891.1	0020	00.2
LOW	0638.9	00.3	0456.7	0040	00.4
IDLE	1136.1	00.5	0124.3	0100	00.8
HI					
LOW					
IDLE					

EPA NO. 51003

APPENDIX B

EPA NO.: 51004 MAKE/MODEL: CHEV/MONTE CARLO ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	110	85	170	P	20	15	40	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	1075	-	1075	F
DEQ QUEUE TIME	15 Minutes				0 Minutes			
HTS HC (ppm)	100	20	80	-	250	30	150	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	200	70	-	80	200	80	-
HTS RPM	850	-	880	-	960	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	40	70	29.85	58	68	30.15
HTS	76	31	30.20	66	57	30.08

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(600)	650
DWELL	N/A		N/A
TIMING	+10	(+06)	+10
MECH ADVANCE	22	(20)	22
TOTAL ADVANCE	40	(38)	41
PROPANE IDLE CK	260		340

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle

Ign. Timing @ Idle
Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil

PERFORMED BY: Owner
COST: $5.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.22	282.26	2022.2	10.04	07.99	
	CS (grams)	002.53	028.03	2430.7	07.10	05.64	
DATE: 1-30-79	HT (grams)	002.10	021.81	1911.0	01.04	07.98	
ODOM: 67008	COMP (GPM)	001.25	021.58	0585.3	02.28	01.82	14.2
	HFET (GPM)	000.15	001.97	0448.0	03.62		19.64
RETEST	FTP CT (grams)	007.63	150.60	2605.3	13.23	11.71	
	CS (grams)	000.92	006.87	2778.5	09.97	08.83	
DATE: 5-2-79	HT (grams)	001.30	015.59	2287.0	13.19	11.79	
ODOM: 69063	COMP (GPM)	000.66	010.74	0693.6	03.09	02.74	12.4
	HFET (GPM)	000.07	000.48	0480.5	03.81		18.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0280.9	00.0	1058.5	0040	00.0
LOW	0186.0	00.0	0730.9	0035	00.0
IDLE	0121.7	00.0	0265.0	0025	00.0
HI	0141.5	00.0	1019.9	0010	00.0
LOW	0086.5	00.0	0926.8	0010	00.0
IDLE	0055.9	00.0	0198.6	0010	00.0

EPA NO. 51004

APPENDIX B

EPA NO.: 51005 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	090	20	100	P	130	35	140	P
DEQ CO (%)	1.6	0.2	1.5	P	1.1	0.4	0.8	P
DEQ RPM	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	5 Minutes				2 Minutes			
HTS HC (ppm)	160	80	270	-	240	40	220	-
HTS CO (%)	0.8	0.6	0.6	-	0.3	0.4	0.2	-
HTS NOX (ppm)	60	140	50	-	60	110	60	-
HTS RPM	700	-	690	-	660	-	690	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	40	70	29.90		60	75	30.15	
HTS	76	31	30.20		65	70	30.08	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	930	(850)	660
DWELL	59	(52)	60
TIMING	+10	(+10)	+09
MECH ADVANCE	25	(25)	19
TOTAL ADVANCE	38	(39)	32
PROPANE IDLE CK	40		30

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
Fast Idle Speed
Spark Plug Firing Volt.
Dwell

Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Air Filters - Condition
Dwell

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.49	072.17	1310.6	17.51	13.93	
	CS (grams)	006.33	064.82	1564.9	08.57	06.82	
DATE: 1-30-79	HT (grams)	006.29	032.87	1207.3	15.30	12.17	
ODOM: 46429	COMP (GPM)	001.81	015.28	0375.5	03.31	02.63	21.9
	HFET (GPM)	000.72	003.95	0261.8	04.54		32.81
RETEST	FTP CT (grams)	008.60	058.57	1264.6	16.69	14.78	
	CS (grams)	007.20	051.74	1479.0	08.23	07.28	
DATE: 5-1-79	HT (grams)	007.05	027.70	1127.1	13.76	12.10	
ODOM: 48361	COMP (GPM)	001.99	012.36	0355.4	03.10	02.74	23.3
	HFET (GPM)	000.76	003.96	0255.2	04.37		33.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1149.9	00.1	1958.7	0075	00.2
LOW	1143.8	00.6	0636.3	0080	00.6
IDLE	0629.7	00.7	0070.9	0050	00.7
HI	0955.2	00.1	1657.3	0050	00.2
LOW	1212.2	00.5	0606.9	0070	00.5
IDLE	0667.7	00.6	0064.9	0040	00.6

APPENDIX B

EPA NO.: 51006 MAKE/MODEL: FORD/MAVERICK ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	20	35	P	65	45	70	P
DEQ CO (%)	1.0	0.2	0.8	P	1.8	0.2	2.1	P
DEQ RPM	800	-	800	P	750	-	800	P
DEQ QUEUE TIME	5 Minutes				10 Minutes			
HTS HC (ppm)	70	30	50	-	170	30	60	-
HTS CO (%)	1.3	0.1	0.8	-	4.7	0.2	1.3	-
HTS NOX (ppm)	60	160	80	-	90	160	80	-
HTS RPM	750	-	760	-	700	-	810	-

	°F	RH	BARO	°F	RH	BARO
DEQ	38	77	29.90	68	45	29.95
HTS	60	48	30.11	87	33	29.84

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(650)	560
DWELL	N/A		N/A
TIMING	000	(+08)	000
MECH ADVANCE	09	(19)	10
TOTAL ADVANCE	33	(39)	29
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	013.57	122.01	2605.3	19.75	15.73		HI	0926.5	00.2	1932.0	0020	00.1
DATE: 1-30-79	CS (grams)	010.94	103.32	2843.7	09.87	07.85		LOW	0593.0	00.1	0495.6	0050	00.1
ODOM: 42228	HT (grams)	006.26	062.21	2203.2	18.52	14.75		IDLE	1771.1	02.9	0083.0	0140	02.4
	COMP (GPM)	002.71	025.50	0696.0	03.86	03.07	11.9						
	HFET (GPM)	000.77	004.20	0482.0	06.71		18.06						
RETEST	FTP CT (grams)	014.50	055.99	2562.5	15.00	13.82		HI	0507.3	00.1	0908.1	0040	00.1
DATE: 4-27-79	CS (grams)	022.65	022.30	3027.7	06.69	06.14		LOW	1526.2	00.1	0204.4	0140	00.1
ODOM: 44805	HT (grams)	011.65	026.16	2237.2	13.11	11.94		IDLE	5657.6	00.1	0073.3	0500	00.1
	COMP (GPM)	004.74	008.17	0720.6	02.75	02.52	11.8						
	HFET (GPM)	001.59	002.99	0430.5	03.01		20.14						

EPA NO.51006

APPENDIX B

EPA NO.: 51007 MAKE/MODEL: FORD/PINTO ENG: 171-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	60	70	P	75	25	60	P
DEQ CO (%)	0.0	1.0	0.5	P	2.2	0.2	1.5	F
DEQ RPM	650	-	700	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	80	40	150	-	90	40	70	-
HTS CO (%)	0.3	0.2	0.0	-	0.1	0.1	0.0	-
HTS NOX (ppm)	100	180	100	-	90	130	80	-
HTS RPM	760	-	770	-	760	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	32	43	29.75	62	65	30.25
HTS	65	31	30.01	75	47	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	710	(700)	590
DWELL	N/A		N/A
TIMING	+08	(+08)	+02
MECH ADVANCE	20	(21)	16
TOTAL ADVANCE	31	(34)	23
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filters - Condition

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Hard Starting, Poor Acceleration
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	013.53	173.73	2065.1	09.26	07.37		HI	0280.9	00.1	0629.0	0020	00.1
DATE: 1-31-79	CS (grams)	003.95	097.59	2440.5	03.23	02.57		LOW	0482.8	00.1	0221.4	0070	00.2
ODOM: 37667	HT (grams)	004.54	059.84	1950.3	07.89	06.32		IDLE	4287.2	02.8	0058.8	0200	02.8
	COMP (GPM)	001.65	027.52	0592.0	01.56	01.25							
	HFET (GPM)	000.12	003.10	0436.0	01.88		20.10						
RETEST	FTP CT (grams)	009.71	140.95	2206.5	10.69	09.56		HI	0221.1	00.1	0678.5	0000	00.0
DATE: 5-1-79	CS (grams)	002.40	055.24	2505.0	06.33	05.62		LOW	0404.6	00.1	0277.4	0030	00.0
ODOM: 39066	HT (grams)	004.05	030.68	1958.7	10.51	09.28		IDLE	1603.7	01.6	0060.1	0120	01.6
	COMP (GPM)	001.18	017.78	0609.4	02.26	02.00	13.8						
	HFET (GPM)	000.14	002.55	0447.4	02.60		19.63						

EPA NO. 51007

APPENDIX B

EPA NO.: 51008 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	115	90	195	P	105	75	170	P
DEQ CO (%)	0.9	0.7	0.9	P	1.1	0.5	1.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	140	60	130	-	140	70	140	-
HTS CO (%)	1.1	0.2	0.8	-	0.6	0.6	0.6	-
HTS NOX (ppm)	60	210	60	-	40	120	60	-
HTS RPM	1030	-	830	-	730	-	780	-

	°F	RH	BARO	°F	RH	BARO
DEQ	38	35	29.85	58	67	30.15
HTS	59	47	29.96	68	58	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(700)	700
DWELL	47	(52)	58
TIMING	+10	(+10)	+10
MECH ADVANCE	18	(22)	22
TOTAL ADVANCE	35	(40)	39
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	SURGES, STUMBLES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Dwell
Air Filters - Condition

Dwell

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Spark Plugs
Replaced Points & Condenser
Replaced Air Filter
Replaced Engine Oil & Oil Filter
Replaced Fuel Filter

PERFORMED BY: Auto Dealer
COST: $86.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.31	056.81	1147.3	14.99	11.95		HI	1157.1	00.3	2333.0	0080	00.3
DATE: 2-1-79	CS (grams)	003.28	033.41	1276.8	07.73	06.16		LOW	0878.8	00.1	0771.6	0060	00.1
ODOM: 36802	HT (grams)	003.59	031.55	1005.6	13.75	11.10		IDLE	1028.7	00.8	0057.7	0080	00.8
	COMP (GPM)	000.96	010.11	0312.4	02.93	02.35	26.8						
	HFET (GPM)	000.65	003.68	0213.9	04.92		39.99						
RETEST	FTP CT (grams)	004.24	034.53	1021.7	16.16	13.96		HI	1053.1	00.2	2397.4	0060	00.2
DATE: 5-2-79	CS (grams)	004.33	022.19	1168.4	11.68	10.16		LOW	0887.9	00.1	1022.3	0040	00.1
ODOM: 39632	HT (grams)	004.04	020.80	0953.7	16.34	14.11		IDLE	0912.4	00.5	0079.2	0060	00.4
	COMP (GPM)	001.13	006.52	0286.8	03.73	03.23	29.5						
	HFET (GPM)	000.70	003.89	0216.3	04.91		39.48						

EPA NO.51008

APPENDIX B

EPA NO.: 51009 MAKE/MODEL: TOYOTA/CORONA WGN ENG: 133-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	25	120	P	30	25	65	P
DEQ CO (%)	0.8	0.1	0.9	P	0.8	0.3	0.7	P
DEQ RPM	1050	-	1050	P	900	-	900	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	120	60	100	-	70	20	60	-
HTS CO (%)	1.0	0.5	0.9	-	1.0	0.3	1.0	-
HTS NOX (ppm)	40	80	50	-	60	120	60	-
HTS RPM	930	-	990	-	880	-	890	-

	°F	RH	BARO	°F	RH	BARO
DEQ	35	42	29.90	81	25	30.10
HTS	75	21	30.06	91	36	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	830	(855)	800
DWELL	50	(52)	52
TIMING	+08	(+08)	+07
MECH ADVANCE	21	(22)	23
TOTAL ADVANCE	40	(42)	39
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None Fast Idle Speed

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Spark Plugs
Replaced Points & Condenser
Adjusted Carburetor & Choke
Replaced Air Filter, PCV Valve
Adjusted Valves, Replaced Fuel Filter
Welded Exhaust System
Adjusted Timing
Adjusted Idle Speed
Adjusted Dwell

PERFORMED BY: Auto Dealer
COST: $70.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.56	081.09	1586.6	22.37	18.07		HI	1042.8	00.2	2436.8	0060	00.2
DATE: 2-2-79	CS (grams)	002.48	052.08	1835.7	08.00	06.46		LOW	1003.0	01.1	0781.9	0080	00.8
	HT (grams)	004.13	032.32	1382.8	20.30	16.30		IDLE	0412.4	00.6	0075.8	0040	00.6
ODOM: 64634	COMP (GPM)	000.96	014.05	0440.8	03.89	03.14	19.0						
	HFET (GPM)	000.62	005.81	0286.9	07.04		29.76						
RETEST	FTP CT (grams)	005.65	078.67	1418.2	17.69	17.16		HI	0941.8	00.2	2347.0	0050	00.1
DATE: 6-2-79	CS (grams)	003.89	061.00	1752.8	07.45	07.35		LOW	1223.3	01.0	0946.9	0090	00.9
	HT (grams)	005.02	034.73	1343.3	18.03	17.10		IDLE	0492.0	00.6	0083.0	0020	00.4
ODOM: 68439	COMP (GPM)	001.22	015.28	0417.1	03.38	03.26	19.9						
	HFET (GPM)	000.65	004.73	0276.2	06.58		31.04						

EPA NO. 51009

APPENDIX B

EPA NO.: 51010 MAKE/MODEL: CADILLAC/DEVILLE ENG: 500-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	130	75	100	P	130	175	140	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	280	30	200	-	330	20	170	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	200	60	-	40	170	40	-
HTS RPM	780	-	800	-	750	-	740	-

	°F	RH	BARO	°F	RH	BARO
DEQ	37	44	29.90	60	70	30.15
HTS	78	18	30.02	72	57	30.08

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	600	(600)	600
DWELL	N/A		N/A
TIMING	+07	(+06)	+07
MECH ADVANCE	18	(17)	17
TOTAL ADVANCE	43	(45)	46
PROPANE IDLE CK	420		300

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Cyl. Power Dist.

Cyl. Power Dist.
Air Filters - Condition

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.69	090.65	2985.0	37.80	34.85	
DATE: 2-6-79	CS (grams)	002.26	002.20	2962.8	27.25	25.13	
ODOM: 42294	HT (grams)	003.09	034.71	2774.0	38.14	34.92	
	COMP (GPM)	000.92	008.13	0777.0	08.70	08.00	11.2
	HFET (GPM)	000.44	015.42	0610.6	08.97		13.94
RETEST	FTP CT (grams)	008.03	104.52	3204.1	09.42	08.70	
DATE: 4-30-79	CS (grams)	001.39	001.16	3171.3	11.47	10.59	
ODOM: 44752	HT (grams)	002.25	015.35	2731.3	09.10	08.40	
	COMP (GPM)	000.82	007.31	0814.1	02.76	02.55	10.7
	HFET (GPM)	000.15	000.60	0599.9	02.34		14.75

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0279.2	00.0	2397.4	0040	00.1
LOW	0120.1	00.0	1805.4	0040	00.0
IDLE	0242.5	00.0	0105.5	0060	00.0
HI	0349.6	00.0	0444.5	0030	00.0
LOW	0129.3	00.0	0637.9	0020	00.0
IDLE	0126.2	00.0	0100.7	0020	00.0

APPENDIX B

EPA NO.: 51011 MAKE/MODEL: CHEV/MALIBU ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	175	155	310	P	195	120	220	P
DEQ CO (%)	1.3	2.3	0.9	P	2.7	2.6	1.8	F
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	30 Minutes				5 Minutes			
HTS HC (ppm)	360	140	360	-	230	90	150	-
HTS CO (%)	0.4	2.3	0.6	-	0.9	1.9	0.7	-
HTS NOX (ppm)	70	260	80	-	80	140	80	-
HTS RPM	740	-	750	-	820	-	790	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	82	30.10	59	70	30.00
HTS	65	56	30.18	69	63	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	560
DWELL	N/A		N/A
TIMING	+07	(+06)	+05
MECH ADVANCE	21	(21)	19
TOTAL ADVANCE	38	(38)	36
PROPANE IDLE CK	50		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None None

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.18	389.52	1963.8	06.20	05.38	
	CS (grams)	013.97	264.52	2159.6	03.48	03.04	
DATE: 2-8-79	HT (grams)	016.57	235.43	1738.8	05.25	04.58	
ODOM: 57402	COMP (GPM)	004.05	075.49	0532.7	01.22	01.06	13.4
	HFET (GPM)	002.06	053.53	0391.9	01.52		18.38
RETEST	FTP CT (grams)	015.80	353.43	1938.5	05.76	05.40	
	CS (grams)	012.61	251.01	2103.2	03.15	02.96	
DATE: 5-5-79	HT (grams)	010.04	206.26	1727.3	04.91	04.61	
ODOM: 58946	COMP (GPM)	003.35	069.41	0522.8	01.12	0105	13.8
	HFET (GPM)	001.86	043.88	0401.1	01.57		18.63

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2716.6	04.4	0408.2	0160	04.0
LOW	3466.9	04.6	0294.2	0230	04.2
IDLE	4037.1	04.1	0058.8	0280	04.2
HI	2457.2	03.1	0406.3	0130	02.8
LOW	2500.0	02.4	0310.8	0160	02.0
IDLE	2328.7	00.9	0105.5	0170	00.8

EPA NO. 51011

APPENDIX B

EPA NO.: 51012 MAKE/MODEL: CHEV/MALIBU ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	75	75	80	P				
DEQ CO (%)	0.0	0.6	0.0	P				
DEQ RPM	900	-	900	P				
DEQ QUEUE TIME	35 Minutes							
HTS HC (ppm)	120	50	100	-				
HTS CO (%)	0.2	0.1	0.2	-				
HTS NOX (ppm)	90	170	80	-				
HTS RPM	820	-	820	-				

No Retest - Vehicle Dropped from program

	°F	RH	BARO	°F	RH	BARO
DEQ	48	83	30.07			
HTS	65	61	29.98			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	570	(600)
DWELL	N/A	
TIMING	+07	(+06)
MECH ADVANCE	22	(20)
TOTAL ADVANCE	38	(38)
PROPANE IDLE CK	60	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Air Filters - Cond.

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.10	162.81	2341.4	14.66	12.91	
	CS (grams)	007.30	090.46	2359.2	06.08	05.40	
DATE: 2-07-79	HT (grams)	003.36	032.67	2088.0	13.11	11.63	
ODOM: 56095	COMP (GPM)	001.86	023.88	0607.5	02.65	02.34	13.6
	HFET (GPM)	000.44	007.33	0484.9	03.93		17.81
RETEST	FTP CT (grams)						
	CS (grams)						
DATE:	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0263.9	00.0	1158.4	0030	00.0
LOW	0539.2	00.2	0160.4	0060	00.1
IDLE	2252.3	01.1	0148.5	0180	01.2
HI					
LOW					
IDLE					

EPA NO. 51012

APPENDIX B

EPA NO.: 51013 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	85	30	P	115	95	110	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	600	P	650	-	650	P
DEQ QUEUE TIME	25 Minutes				10 Minutes			
HTS HC (ppm)	110	30	130	-	180	40	130	-
HTS CO (%)	0.0	0.2	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	240	80	-	60	390	60	-
HTS RPM	650	-	660	-	650	-	650	-

	°F	RH	BARO	°F	RH	BARO
DEQ	45	74	29.95	64	53	30.00
HTS	72	45	30.18	75	40	29.93

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(550)	510
DWELL	N/A		N/A
TIMING	+19	(+19)	+14
MECH ADVANCE	30	(29)	24
TOTAL ADVANCE	43	(53)	28
PROPANE IDLE CK	110		220

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Total Adv. @ 2500
Cyl. Power Dist.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Collapsed Vacuum Line-Dist.
Cyl. Power Dist.
EGR Plugged
Vacuum Hoses - Cond.
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.48	091.91	2135.9	13.34	12.18	
	CS (grams)	001.52	000.20	2198.8	09.59	08.82	
DATE: 2-08-79	HT (grams)	001.96	003.88	1900.1	14.32	13.17	
ODOM: 102738	COMP (GPM)	000.84	005.59	0560.0	03.13	02.88	15.5
	HFET (GPM)	000.12	000.09	0426.7	03.37		20.76
RETEST	FTP CT (grams)	007.59	064.21	2169.4	15.15	13.12	
	CS (grams)	001.28	000.03	2222.9	08.94	07.82	
DATE: 5-08-79	HT (grams)	001.24	001.45	1908.6	13.05	11.41	
ODOM: 107165	COMP (GPM)	000.70	003.80	0565.8	03.05	02.66	15.4
	HFET (GPM)	000.08	000.02	0434.1	03.01		20.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0156.8	00.0	1165.5	0020	00.0
LOW	0129.3	00.0	0943.5	0030	00.0
IDLE	0239.4	00.0	0105.5	0040	00.0
HI	0104.8	00.0	1101.1	0010	00.0
LOW	0092.6	00.0	0575.8	0010	00.0
IDLE	0172.1	00.0	0124.6	0020	00.0

EPA NO. 51013

APPENDIX B

EPA NO.: 51014 MAKE/MODEL: FORD/TORINO WGN ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	215	65	215	P	90	40	165	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.1	0.0	P
DEQ RPM	550	-	550	P	550	-	600	P
DEQ QUEUE TIME	10 Minutes				20 Minutes			
HTS HC (ppm)	290	50	230	-	100	30	80	-
HTS CO (%)	0.1	0.1	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	120	40	-	70	140	70	-
HTS RPM	550	-	540	-	810	-	810	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	46	73	29.95		60	59	30.05	
HTS	72	42	30.18		71	40	29.96	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(660)	430
DWELL	N/A		N/A
TIMING	+07	(+08)	+10
MECH ADVANCE	16	(15)	16
TOTAL ADVANCE	34	(39)	32
PROPANE IDLE CK	110		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Spark Firing Volt.
Air Filters - Condition

Idle Speed
Air Filters - Cond.
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.61	048.90	2919.6	12.82	11.71	
	CS (grams)	003.80	022.13	2994.7	05.40	04.97	
DATE: 2-07-79	HT (grams)	004.43	024.10	2415.4	11.12	10.23	
ODOM: 39362	COMP (GPM)	001.22	007.59	0750.2	02.30	02.11	11.6
	HFET (GPM)	000.63	002.77	0536.6	03.47		16.33
RETEST	FTP CT (grams)	003.84	047.60	2941.1	11.99	11.01	
	CS (grams)	002.77	017.58	3345.8	05.73	05.32	
DATE: 5-4-79	HT (grams)	003.42	017.55	2541.7	11.04	10.26	
ODOM: 40749	COMP (GPM)	000.85	006.41	0807.9	02.29	02.12	10.8
	HFET (GPM)	000.52	002.36	0552.3	03.65		15.90

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0355.7	00.1	0685.6	0020	00.1
LOW	0419.9	00.0	0148.5	0030	00.0
IDLE	0652.4	00.0	0057.7	0060	00.0
HI	0412.4	00.1	0733.4	0015	00.1
LOW	0342.1	00.1	0175.3	0040	00.0
IDLE	0473.6	00.0	0114.6	0040	00.0

EPA NO. 51014

APPENDIX B

EPA NO.: 51015 MAKE/MODEL: PLYMOUTH/FURY ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	20	50	P	45	30	145	P
DEQ CO (%)	0.7	0.0	0.2	P	0.0	0.0	0.0	P
DEQ RPM	750	-	750	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				2 Minutes			
HTS HC (ppm)	60	30	100	-	170	50	50	-
HTS CO (%)	0.1	0.0	0.0	-	0.9	0.0	0.0	-
HTS NOX (ppm)	90	180	100	-	90	410	80	-
HTS RPM	690	-	700	-	670	-	680	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	74	29.95	68	48	29.96
HTS	75	47	30.09	80	41	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	730	(755)	670
DWELL	N/A		N/A
TIMING	+03	(+02)	+03
MECH ADVANCE	12	(20)	16
TOTAL ADVANCE	35	(42)	48
PROPANE IDLE CK	80		50

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
Fast Idle Speed
Spark Plug Firing Volt.
Mech. Adv. @ 2500
Total Adv. @ 2500

Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	018.01	166.21	2334.4	07.94	07.27		HI	302.3	00.0	0757.6	0040	00.0
DATE: 2-9-79	CS (grams)	004.75	051.40	2591.5	04.54	04.16		LOW	1018.3	00.0	1192.0	0050	00.0
	HT (grams)	010.74	031.37	2038.5	09.20	08.48		IDLE	0262.5	00.0	0136.4	0060	00.0
ODOM: 91823	COMP (GPM)	002.48	018.77	0634.3	01.76	01.62	13.2						
	HFET (GPM)	00.17	000.42	0428.0	02.87		20.66						
RETEST	FTP CT (grams)	012.85	103.39	2126.9	11.17	10.45		HI	0290.0	00.0	0815.9	0030	00.0
DATE: 5-4-79	CS (grams)	005.57	046.24	2271.7	10.84	10.15		LOW	0430.8	00.0	1434.6	0050	00.0
	HT (grams)	004.57	025.87	1859.7	13.97	13.07		IDLE	1324.3	00.4	0136.4	0100	00.5
ODOM: 95184	COMP (GPM)	001.83	014.06	0566.2	03.15	02.95	14.9						
	HFET (GPM)	000.20	000.27	0414.5	02.50		21.34						

EPA NO. 51015

EPA NO.: 51016 MAKE/MODEL: CHEV/IMPALA ENG: 350-2V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	125	45	110	P	245	135	205	F
DEQ CO (%)	1.0	0.1	0.1	P	3.1	1.0	2.3	F
DEQ RPM	775	-	775	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	100	30	70	-	140	40	160	-
HTS CO (%)	0.1	0.0	0.0	-	0.6	0.0	1.8	-
HTS NOX (ppm)	70	300	80	-	110	280	120	-
HTS RPM	720	-	750	-	750	-	750	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	75	30.00	62	56	30.00
HTS	62	69	30.06	72	39	29.96

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	560	(600)	560
DWELL	N/A		N/A
TIMING	+05	(+06)	+05
MECH ADVANCE	19	(20)	18
TOTAL ADVANCE	36	(38)	35
PROPANE IDLE CK	60		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK MISSING

PROBLEM AREAS: EGR - Plugged

EGR - Plugged
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Independent Garage
COST: $12.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.76	199.98	2347.0	17.71	16.40	
	CS (grams)	007.01	110.33	2452.2	09.21	08.53	
DATE: 2-9-79	HT (grams)	005.01	060.16	2135.7	16.09	14.90	
ODOM: 40840	COMP (GPM)	002.5	030.75	0623.8	03.47	03.21	13.1
	HFET (GPM)	000.21	005.15	0493.2	04.09		17.67
RETEST	FTP CT (grams)	009.95	168.61	2499.5	19.54	18.16	
	CS (grams)	005.77	090.49	2660.3	11.10	10.39	
DATE: 5-4-79	HT (grams)	005.79	055.83	2313.8	18.43	17.25	
ODOM: 43741	COMP (GPM)	01.78	025.98	0673.8	04.00	03.74	12.3
	HFET (GPM)	000.10	001.33	0517.3	05.15		17.06

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0533.1	00.2	1208.5	0050	00.4
LOW	0303.7	00.0	0628.3	0060	00.2
IDLE	2178.8	01.1	0129.4	0160	01.0
HI	0227.2	00.0	1638.2	0020	00.0
LOW	0117.1	00.0	0673.7	0020	00.0
IDLE	1918.8	00.9	0134.1	0120	00.8

EPA NO. 51016

APPENDIX B

EPA NO.: 51017 MAKE/MODEL: TOYOTA/COROLLA WGN ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	60	30	105	P	50	25	95	P
DEQ CO (%)	1.2	0.3	0.8	P	0.8	0.2	0.8	P
DEQ RPM	800	-	800	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				0 Minutes			
HTS HC (ppm)	130	60	110	-	130	30	100	-
HTS CO (%)	1.2	0.5	0.8	-	0.8	0.3	0.8	-
HTS NOX (ppm)	60	80	60	-	50	100	50	-
HTS RPM	790	-	860	-	710	-	750	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	76	30.00	59	68	29.95
HTS	67	53	30.12	72	49	29.63

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	670	(855)	620
DWELL	57	(57)	58
TIMING	+07	(+12)	+06
MECH ADVANCE	18	(27)	16
TOTAL ADVANCE	18	(41)	26
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed	Idle Speed
Fast Idle Speed	Fast Idle Speed
Ign. Timing @ Idle	Ign. Timing @ Idle
Mech. Adv. @ 2500	Mech. Adv. @ 2500
Total Adv. @ 2500	Total Adv. @ 2500
Spark Plug Firing Volt.	Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Independent Garage
COST: $13.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.84	070.64	1314.4	09.77	08.86		HI	0921.6	00.7	1184.6	0060	00.8
DATE: 2-12-79	CS (grams)	002.75	043.24	1580.2	04.26	03.83		LOW	0612.6	00.7	0315.6	0050	00.8
	HT (grams)	003.67	047.83	1197.5	08.20	07.39		IDLE	0832.9	00.8	0062.5	0070	00.9
ODOM: 31431	COMP (GPM)	000.98	013.45	0377.1	01.75	01.58	22.1						
	HFET (GPM)	000.44	008.38	0248.9	02.98		33.65						
RETEST	FTP CT (grams)	005.51	070.40	1406.1	11.62	10.10		HI	1159.1	00.3	1774.3	0060	00.3
DATE: 5-8-79	CS (grams)	002.68	039.42	1699.0	06.06	05.26		LOW	0718.4	00.4	0597.5	0040	00.4
	HT (grams)	003.27	031.71	1251.5	10.75	09.34		IDLE	0813.3	00.7	0068.5	0060	00.7
ODOM: 34393	COMP (GPM)	000.92	011.70	0402.3	02.29	01.99	20.9						
	HFET (GPM)	000.57	006.75	0268.7	04.12		31.55						

EPA NO. 51017

APPENDIX B

EPA NO.: 51018 MAKE/MODEL: HONDA/CVCC ENG: 91-3V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	20	15	25	P	75	35	65	P
DEQ CO (%)	0.1	0.2	0.1	P	0.4	0.2	0.3	P
DEQ RPM	950	-	900	P	800	-	900	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	200	110	200	-	130	50	100	-
HTS CO (%)	0.2	0.2	0.2	-	0.2	0.2	0.2	-
HTS NOX (ppm)	110	180	100	-	80	120	90	-
HTS RPM	820	-	900	-	910	-	950	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	76	30.00	69	61	29.70
HTS	64	65	30.00	74	47	29.62

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	900	(855)	970
DWELL	50	(52)	51
TIMING	+01	(+00)	-03
MECH ADVANCE	12	(13)	08
TOTAL ADVANCE	21	(21)	07
PROPANE IDLE CK	200		190

DRIVEABILITY		
ENG STARTING	FALSE	GOOD
TRANSMISSION	OK	OK
CLUTCH	GRABS	OK
BRAKES	OK	OK
OVERALL PERF	SURGES, STUMBLES	SURGES, STUMBLES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None

Idle Speed
Cyl. Power Dist.
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Spark Plugs
Replaced Points & Condenser
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.85	083.93	1345.9	04.64	04.19	
DATE: 2-12-79	CS (grams)	000.83	018.27	1546.7	04.39	03.92	
	HT (grams)	007.96	26.55	1177.3	05.24	04.68	
ODOM: 41204	COMP (GPM)	001.39	009.27	0372.9	01.25	01.12	22.6
	HFET (GPM)	000.06	000.70	0256.9	01.38		34.35
RETEST	FTP CT (grams)	005.18	075.45	1204.6	05.01	04.43	
DATE: 5-8-79	CS (grams)	000.44	009.16	1412.9	04.18	03.70	
	HT (grams)	005.07	015.00	1068.0	05.23	04.59	
ODOM: 43951	COMP (GPM)	000.74	006.69	0338.6	01.24	01.10	25.2
	HFET (GPM)	000.02	000.51	0232.0	01.61		38.09

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0026.9	00.0	0757.6	0020	00.1
LOW	0048.3	00.1	0706.7	0020	00.1
IDLE	0268.6	00.2	0097.6	0020	00.2
HI	0065.1	00.1	0926.8	0000	00.1
LOW	0031.4	00.0	0454.1	0000	00.0
IDLE	0144.6	00.2	0105.5	0000	00.1

EPA NO. 51018

APPENDIX B

EPA NO.: 51019 MAKE/MODEL: FORD/ELITE ENG:400-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	35	20	45	P	50	35	85	P
DEQ CO (%)	0.1	0.0	0.1	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				3 Minutes			
HTS HC (ppm)	60	20	50	-	30	10	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.1	0.0	0.0	-
HTS NOX (ppm)	60	200	70	-	80	210	70	-
HTS RPM	940	-	930	-	920	-	910	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	71	29.75	64	49	30.35
HTS	68	42	29.80	74	43	30.29

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(700)	680
DWELL	N/A		N/A
TIMING	+08	(+08)	+10
MECH ADVANCE	16	(15)	17
TOTAL ADVANCE	34	(39)	16
PROPANE IDLE CK	210		170

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt.
EGR - Plugged

Vacuum Hoses - Condition
Total Adv. @ 2500
EGR - Plugged

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.79	082.30	3374.1	17.59	14.85	
	CS (grams)	002.43	011.65	3392.7	12.23	10.32	
DATE: 2-26-79	HT (grams)	002.44	020.68	2736.0	18.24	15.40	
ODOM: 45655	COMP (GPM)	000.84	007.84	0853.7	04.03	03.40	10.2
	HFET (GPM)	000.24	001.86	0618.1	05.00		14.26
RETEST	FTP CT (grams)	007.93	049.91	3209.5	16.47	14.55	
	CS (grams)	002.15	012.57	3406.3	11.09	09.73	
DATE: 5-19-79	HT (grams)	002.40	019.45	2757.2	17.32	15.20	
ODOM: 47362	COMP (GPM)	000.92	006.02	0847.7	03.74	03.29	10.3
	HFET (GPM)	000.27	003.17	0584.8	04.80		15.01

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0198.2	00.1	0973.6	0020	00.1
LOW	0192.1	00.0	0454.3	0020	00.0
IDLE	0381.8	00.0	0165.5	0020	00.0
HI	0172.1	00.1	1356.5	0010	00.1
LOW	0218.0	00.0	0389.6	0020	00.0
IDLE	0328.1	00.0	0189.1	0030	00.0

APPENDIX B

EPA NO.: 51020 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS:MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	35	25	50	P	75	25	65	P
DEQ CO (%)	0.7	0.5	0.6	P	0.5	0.1	0.3	P
DEQ RPM	950	-	900	P	1000	-	1050	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	50	40	70	-	80	30	60	-
HTS CO (%)	0.5	0.5	0.7	-	0.4	0.3	0.3	-
HTS NOX (ppm)	70	90	60	-	50	100	50	-
HTS RPM	1180	-	1040	-	930	-	990	-

	°F	RH	BARO	°F	RH	BARO
DEQ	47	67	29.75	65	37	30.25
HTS	78	36	29.80	80	32	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	850	(855)	870
DWELL	51	(57)	51
TIMING	+05	(+12)	+03
MECH ADVANCE	14	(27)	13
TOTAL ADVANCE	23	(41)	21
PROPANE IDLE CK	30		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Spark Plug Firing Volt.
Dwell

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Service Station
COST: $12.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	006.87	063.22	1485.7	10.31	08.79		HI	1037.8	00.3	1179.8	0060	00.3
	CS	(grams)	002.21	038.53	1958.3	04.74	04.04		LOW	0554.5	00.6	0272.6	0030	00.6
DATE: 2-26-79	HT	(grams)	003.35	032.50	1343.8	09.16	07.86		IDLE	0386.3	00.5	0043.4	0030	00.6
ODOM: 28273	COMP	(GPM)	000.94	011.23	0448.4	01.92	01.64	18.9						
	HFET	(GPM)	000.52	006.55	0259.4	02.96		32.68						
RETEST	FTP CT	(grams)	006.15	056.87	1366.2	08.99	07.97		HI	1205.0	00.2	1126.4	0080	00.2
	CS	(grams)	002.68	036.12	1753.1	04.35	03.86		LOW	0724.6	00.5	0359.7	0060	00.5
DATE: 5-18-79	HT	(grams)	003.26	025.53	1246.1	08.57	07.60		IDLE	0525.7	00.4	0063.6	0040	00.4
ODOM: 30032	COMP	(GPM)	000.96	010.02	0406.8	01.75	01.55	20.8						
	HFET	(GPM)	000.61	004.15	0254.6	03.28		33.71						

EPA NO.51020

APPENDIX B

EPA NO.: 51021 MAKE/MODEL: AMC/PACER ENG: 258-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	60	40	70	P	30	60	45	P
DEQ CO (%)	1.4	0.6	1.4	P	0.2	0.2	0.2	P
DEQ RPM	950	-	950	P	1000	-	1000	P
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	60	30	60	-	40	30	60	-
HTS CO (%)	0.5	0.3	0.7	-	0.4	0.4	0.7	-
HTS NOX (ppm)	160	640	160	-	150	520	150	-
HTS RPM	900	-	920	-	1020	-	990	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	39	30.00	76	37	30.15
HTS	72	35	30.00	90	31	30.09

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(550)	700
DWELL	N/A		N/A
TIMING	+06	(+08)	+14
MECH ADVANCE	17	(18)	25
TOTAL ADVANCE	31	(34)	40
PROPANE IDLE CK	40		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Spark Plug Firing Volt.
EGR - Plugged

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
EGR - Plugged

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	006.14	112.30	1738.1	26.86	26.02		HI	1187.7	00.3	2397.4	0020	00.2
	CS	(grams)	006.71	110.09	1756.6	16.85	16.33		LOW	1775.1	01.1	1733.7	0080	01.0
DATE: 3-5-79	HT	(grams)	006.15	076.73	1469.5	22.82	22.28		IDLE	2163.5	02.3	0220.1	0100	02.4
ODOM: 29986	COMP	(GPM)	001.71	026.95	0445.6	05.52	05.36	18.0						
	HFET	(GPM)	000.92	011.02	0356.5	06.28		23.54						
RETEST	FTP CT	(grams)	004.93	084.58	1637.8	23.34	22.04		HI	0813.3	00.1	2436.8	0030	00.1
	CS	(grams)	004.65	026.30	1958.6	18.59	17.55		LOW	1309.0	00.2	1888.4	0070	00.2
DATE: 6-2-79	HT	(grams)	004.04	021.90	1602.8	24.86	23.13		IDLE	1330.4	00.4	0362.1	0080	00.4
ODOM: 32494	COMP	(GPM)	001.21	010.02	0476.9	05.71	05.36	17.9						
	HFET	(GPM)	000.67	004.05	0343.5	06.58		25.19						

EPA NO.51021

APPENDIX B

EPA NO.: 51022 MAKE/MODEL: CADILLAC/DEVILLE ENG: 500-4V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	70	90	70	P	45	70	55	P
DEQ CO (%)	0.0	0.3	0.0	P	0.0	1.5	0.0	P
DEQ RPM	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	350	120	300	-	140	80	100	-
HTS CO (%)	0.2	0.8	0.3	-	0.0	2.1	0.0	-
HTS NOX (ppm)	80	240	100	-	110	180	100	-
HTS RPM	740	-	850	-	790	-	830	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	38	30.00	68	40	30.30
HTS	67	37	29.96	80	35	30.23

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	630	(600)	580
DWELL	N/A		N/A
TIMING	+05	(+06)	+06
MECH ADVANCE	17	(17)	16
TOTAL ADVANCE	52	(45)	45
PROPANE IDLE CK	110		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Total Adv. @ 2500 Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $7.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.05	217.22	2715.6	07.93	07.59	
DATE: 3-5-79	CS (grams)	005.57	064.36	2844.5	07.52	07.19	
ODOM: 56996	HT (grams)	005.39	077.62	2371.4	08.26	07.96	
	COMP (GPM)	001.84	026.93	0715.2	02.09	02.00	11.6
	HFET (GPM)	001.43	032.86	0505.4	01.93		15.79
RETEST	FTP CT (grams)	013.44	172.30	2658.3	08.28	07.96	
DATE: 6-8-79	CS (grams)	004.34	034.53	2873.7	07.80	07.51	
ODOM: 59381	HT (grams)	004.44	053.83	2335.3	08.46	08.03	
	COMP (GPM)	001.69	018.57	0713.0	02.16	02.07	11.9
	HFET (GPM)	001.07	021.14	0510.7	02.35		16.20

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0847.0	00.6	0595.0	0040	00.4
LOW	0978.5	01.0	0417.9	0080	00.9
IDLE	0727.6	00.1	0075.8	0140	00.3
HI	1110.1	00.6	0638.7	0060	00.6
LOW	1220.3	00.9	0451.9	0080	00.8
IDLE	1125.4	00.2	0177.7	0090	00.2

EPA NO. 51022

APPENDIX B

EPA NO.: 51023 MAKE/MODEL: CHEV/IMPALA ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	140	70	P	60	200	190	P
DEQ CO (%)	0.4	4.0	0.1	P	0.7	7.4	0.9	P
DEQ RPM	850	-	850	P	850	-	850	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	50	100	50	-	80	140	60	-
HTS CO (%)	0.0	2.3	0.0	-	0.0	4.9	0.0	-
HTS NOX (ppm)	80	160	80	-	60	170	80	-
HTS RPM	700	-	760	-	820	-	810	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	40	30.00	81	25	30.10
HTS	74	29	29.96	93	31	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(600)	530
DWELL	N/A		N/A
TIMING	+10	(+06)	+10
MECH ADVANCE	22	(21)	22
TOTAL ADVANCE	42	(39)	40
PROPANE IDLE CK	130		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Fast Idle Speed
Ign. Timing @ Idle

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	023.62	539.80	1924.4	05.17	05.01	
	CS (grams)	012.09	260.87	2155.7	03.56	03.45	
DATE: 3-06-79	HT (grams)	011.44	326.99	1795.1	04.36	04.23	
ODOM: 36823	COMP (GPM)	003.84	090.58	0534.2	01.10	01.07	12.9
	HFET (GPM)	002.94	096.78	0404.4	01.09		15.67
RETEST	FTP CT (grams)	018.58	521.85	1998.6	05.30	05.00	
	CS (grams)	010.31	264.11	2344.1	03.91	03.66	
DATE: 6-02-79	HT (grams)	011.34	379.45	1829.7	04.49	04.29	
ODOM: 39328	COMP (GPM)	003.30	093.97	0566.2	01.17	01.10	12.2
	HFET (GPM)	002.58	109.39	0381.0	00.88		15.81

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	3150.1	04.4	0279.8	0150	04.2
LOW	2870.0	02.7	0196.2	0180	02.6
IDLE	0359.2	00.0	0184.3	0020	00.0
HI	2686.0	05.6	0269.9	0160	05.2
LOW	1538.5	01.7	0187.4	0110	01.7
IDLE	0186.0	00.0	058.8	0010	00.0

EPA NO. 51023

EPA NO.: 51024 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	95	60	105	P	110	50	140	P
DEQ CO (%)	1.4	0.2	1.3	P	1.6	0.7	1.3	P
DEQ RPM	600	-	600	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	60	30	60	-	140	610	170	-
HTS CO (%)	0.7	0.2	0.7	-	0.7	1.2	0.7	-
HTS NOX (ppm)	70	180	60	-	60	230	70	-
HTS RPM	1060	-	1190	-	690	-	700	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	76	30.05	77	34	30.15
HTS	57	71	30.00	95	31	30.08

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	1040	(700)	650
DWELL	52	(52)	48
TIMING	+08	(+10)	+11
MECH ADVANCE	18	(23)	23
TOTAL ADVANCE	37	(41)	41
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Spark Plug Firing Volt.

Dwell

MAINTENANCE	MAINT PRIOR TO RETEST	
	Replaced Spark Plugs	Adjusted Carburetor
	Replaced Points & Condenser	Adjusted Idle Speed
	Replaced Air Filter	Adjusted Timing
	Replaced Fuel Filter	Adjusted Dwell

PERFORMED BY: Auto Dealer
COST: $60.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.27	051.13	1139.1	14.53	13.89	
	CS (grams)	005.36	037.82	1348.6	11.37	11.10	
DATE: 3-5-79	HT (grams)	004.86	033.09	0965.2	14.85	14.49	
ODOM: 58546	COMP (GPM)	001.39	010.49	0318.5	03.48	03.38	26.1
	HFET (GPM)	000.83	003.48	0211.7	05.05		40.35
RETEST	FTP CT (grams)	005.30	030.54	0973.7	14.79	12.68	
	CS (grams)	007.51	024.83	1070.9	10.94	09.38	
DATE: 6-6-79	HT (grams)	006.63	020.70	0902.4	17.08	14.65	
ODOM: 62814	COMP (GPM)	001.81	006.63	0267.2	03.60	03.09	31.3
	HFET (GPM)	000.87	002.63	0207.7	05.73		41.33

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1356.0	00.2	2397.4	0120	00.3
LOW	1756.7	00.1	1986.8	0160	00.1
IDLE	0881.8	00.7	0079.2	0080	00.7
HI	1080.7	00.1	2397.4	0080	00.2
LOW	1738.3	00.1	0941.1	0140	00.1
IDLE	1258.1	00.5	0067.3	0100	00.5

EPA NO. 51024

APPENDIX B

EPA NO.: 52001 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	145	45	140	F	15	15	20	P	25	45	30	P
DEQ CO (%)	2.2	0.2	1.7	F	0.0	0.0	0.0	P	0.0	0.2	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				10 Minutes				20 Minutes			
HTS HC (ppm)	170	50	210	-	60	50	60	-	30	20	20	-
HTS CO (%)	3.1	0.0	2.5	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	440	100	-	80	500	80	-	60	280	70	-
HTS RPM	810	-	800	-	710	-	710	-	730	-	750	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	39	78	29.85		42	78	29.70		56	63	30.12	
HTS	68	42	29.78		75	40	29.94		65	56	30.06	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	550	(550)	550	550
DWELL	N/A		N/A	N/A
TIMING	+09	(+10)	+09	+08
MECH ADVANCE	23	(18)	18	22
TOTAL ADVANCE	45	(36)	39	44
PROPANE IDLE CK	20		240	190

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	HARD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	STUMBLES, STRETCHY	OK	STUMBLE, BACKFIRES DIESELS
IDLE LIMITER CAPS:	OK	MISSING	MISSING
PROBLEM AREAS:	Mech. Adv. @ 2500 Total Adv. @ 2500	None	Air Filters - Condition Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing Replaced Engine Oil	None
PERFORMED BY:	Service Station	
COST:	$20.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.15	134.52	2010.0	15.05	12.51	
DATE:1-26-79	CS (grams)	003.89	115.25	1996.2	07.11	05.91	
ODOM:44059	HT (grams)	004.55	057.13	1665.6	11.49	09.54	
	COMP (GPM)	001.22	027.42	0508.0	02.68	02.23	16.0
	HFET (GPM)	000.14	001.91	0376.6	04.02		23.33
MAINT RETEST	FTP CT (grams)	024.53	541.22	1886.7	10.03	08.65	
DATE:2-15-79	CS (grams)	000.87	000.19	2353.8	08.30	07.11	
ODOM:44730	HT (grams)	002.33	009.67	1892.3	10.64	09.03	
	COMP (GPM)	001.70	031.79	0565.8	02.49	02.13	14.3
	HFET (GPM)	000.08	000.25	0390.1	03.97		22.70
RETEST	FTP CT (grams)	021.88	557.45	1665.4	08.15	07.11	
DATE:5-02-79	CS (grams)	000.59	000.09	2139.0	08.14	07.15	
ODOM:46773	HT (grams)	001.64	003.71	1769.5	12.34	10.77	
	COMP (GPM)	001.46	032.25	0515.2	02.49	02.18	15.5
	HFET (GPM)	000.07	000.05	0379.9	04.67		23.32

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0144.6	00.0	1361.3	0020	00.0
LOW	0224.1	00.0	1041.4	0030	00.0
IDLE	2178.8	03.3	0098.3	0170	03.4
HI	0152.3	00.0	1432.2	0020	00.0
LOW	0170.7	00.0	1437.0	0020	00.0
IDLE	0130.9	00.0	0124.3	0020	00.0
HI	0101.8	00.0	1721.8	0010	00.0
LOW	0101.8	00.0	1280.1	0010	00.0
IDLE	0074.2	00.0	0232.0	0010	00.0

EPA NO. 52001

APPENDIX B

EPA NO.: 52002 MAKE/MODEL: PLYMOUTH/DUSTER ENG: 225-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	135	40	145	P	40	40	55	P	25	30	30	P
DEQ CO (%)	3.8	0.1	3.5	F	0.1	0.1	0.0	P	0.0	0.3	0.0	P
DEQ RPM	700	-	700	P	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				45 Minutes				10 Minutes			
HTS HC (ppm)	170	40	160	-	330	50	180	-	90	30	80	-
HTS CO (%)	2.3	0.0	2.8	-	0.0	0.0	0.0	-	0.0	0.2	0.0	-
HTS NOX (ppm)	120	500	130	-	40	440	60	-	80	400	80	-
HTS RPM	780	-	780	-	560	-	570	-	670	-	660	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	38	75	29.85		50	80	30.03		72	42	29.87	
HTS	69	39	30.16		65	61	29.98		84	32	29.84	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	730	(750)	650	600	
DWELL	N/A		N/A	N/A	
TIMING	+02	(000)	+03	+03	
MECH ADVANCE	23	(21)	21	22	
TOTAL ADVANCE	40	(38)	23	25	
PROPANE IDLE CK	0		290	250	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		FADE	OK	
OVERALL PERF	STUMBLE		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Air Filters - Condition		Idle Speed Total Adv. @ 2500 Air Filters - Cond.	Idle Speed Total Adv. @ 2500 Air Filters - Cond.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$11.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	010.40	197.03	1729.5	11.56	09.26		HI	0216.6	00.0	2436.8	0020	00.0
	CS (grams)	005.63	123.49	1870.4	10.78	08.64		LOW	0320.6	00.0	1810.7	0040	00.1
DATE: 1-29-79	HT (grams)	005.28	061.47	1583.5	12.86	10.30		IDLE	3456.9	03.3	0083.0	0170	03.4
ODOM: 35443	COMP (GPM)	001.75	032.43	0468.9	03.08	02.47	16.9						
	HFET (GPM)	000.25	002.48	0350.2	02.86		24.99						
MAINT RETEST	FTP CT (grams)	006.07	135.55	1774.0	12.90	11.13		HI	0553.2	00.0	2436.8	0030	00.0
	CS (grams)	000.87	002.84	1918.0	11.30	09.72		LOW	0195.2	00.0	0932.3	0010	00.0
DATE: 2-07-79	HT (grams)	003.26	013.39	1575.3	13.53	11.64		IDLE	0421.6	00.0	0083.0	0010	00.0
ODOM: 35684	COMP (GPM)	000.71	009.17	0477.2	03.27	02.82	18.0						
	HFET (GPM)	000.10	000.42	0346.9	04.24		25.49						
RETEST	FTP CT (grams)	007.98	104.31	1904.4	13.10	12.15		HI	0138.5	00.0	0960.2	0020	00.0
	CS (grams)	000.78	003.68	1899.9	09.79	09.08		LOW	0077.3	00.0	0762.0	0010	00.0
DATE: 4-27-79	HT (grams)	001.39	007.85	1656.1	12.26	11.37		IDLE	0325.1	00.0	0086.4	0040	00.0
ODOM: 39221	COMP (GPM)	000.67	007.07	0488.4	02.99	02.77	17.7						
	HFET (GPM)	000.07	000.13	0373.5	03.65		23.71						

EPA NO. 52002

APPENDIX B

EPA NO.: 52003 MAKE/MODEL: CHRYSLER/CORDOBA ENG: 360-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	135	60	140	F	120	40	120	P	35	25	30	P
DEQ CO (%)	2.9	0.1	2.9	F	0.9	0.0	0.6	P	0.0	0.0	0.0	P
DEQ RPM	850	-	900	P	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				20 Minutes				15 Minutes			
HTS HC (ppm)	220	60	180	-	1780	370	550	-	80	20	40	-
HTS CO (%)	2.4	0.0	2.4	-	0.3	0.3	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	140	90	-	60	160	60	-	60	120	60	-
HTS RPM	710	-	730	-	560	-	600	-	750	-	700	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	34	39	29.85	48	76	30.00	59	62	30.39
HTS	83	23	30.19	64	64	30.00	72	45	30.16

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	660	(755)	710		660
DWELL	N/A		N/A		N/A
TIMING	+07	(+06)	+06		+08
MECH ADVANCE	23	(23)	21		22
TOTAL ADVANCE	25	(45)	41		46
PROPANE IDLE CK	30		250		300

DRIVEABILITY			
ENG STARTING	GOOD	HARD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Idle Speed Total Adv. @ 2500 Spk Plg Frng. Volt. Cyl. Power Dist.	Spk Plg Frng. Volt. Cyl. Power Dist.	Idle Speed Spk Plg Frng. Volt. Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filter Replaced PCV System Adjusted Carburetor - Choke Adjusted Idle Speed - Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$83.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

EPA NO.: 52003 MAKE/MODEL : CHRYSLER/CORDOBA ENG: 360-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	40	115	P	25	15	20	P
DEQ CO (%)	0.2	0.0	0.5	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	20 Minutes				8 Minutes			
HTS HC (ppm)	100	30	60	-	90	20	50	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	150	50	-	60	140	60	-
HTS RPM	720	-	720	-	700	-	680	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	57	30.10	68	48	30.15
HTS	64	56	30.05	82	42	30.07

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	620	(755)	710
DWELL	N/A		N/A
TIMING	+06	(+06)	+07
MECH ADVANCE	21	(23)	25
TOTAL ADVANCE	43	(45)	26
PROPANE IDLE CK	90		230

DRIVEABILITY		
ENG STARTING	FALSE	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed

Total Adv. @ 2500

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
	Adjusted Choke	
	Adjusted Idle Speed	
	Adjusted Timing	

PERFORMED BY: HTS
COST: None
MANHOURS: 5 Hours
OWNER'S DRIVEABILITY EVAL: N/A
OWNER SATISFIED WITH VEH: N/A

No Major Problems
Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.66	191.88	2230.0	06.29	05.01	
DATE: 1-30-79	CS (grams)	005.92	215.68	2485.2	03.41	02.74	
ODOM: 18220	HT (grams)	004.41	111.90	2044.6	05.93	04.76	
	COMP (GPM)	001.68	048.26	0614.6	01.27	01.01	12.7
	HFET (GPM)	000.21	005.99	0429.7	02.44		20.16
MAINT RETEST	FTP CT (grams)	007.04	093.93	2638.9	07.02	06.30	
DATE: 2-09-79	CS (grams)	000.50	006.69	2769.9	04.09	03.67	
ODOM: 18412	HT (grams)	001.32	016.59	2197.9	05.92	05.32	
	COMP (GPM)	000.57	007.54	0687.7	01.40	01.25	12.6
	HFET (GPM)	000.07	000.77	0452.6	02.45		19.53
RETEST	FTP CT (grams)	010.29	135.82	2373.2	05.65	05.06	
DATE: 4-26-79	CS (grams)	004.88	175.47	2594.1	03.01	02.67	
ODOM: 19476	HT (grams)	005.09	122.79	2068.1	04.20	03.73	
	COMP (GPM)	001.63	040.51	0639.1	01.04	00.93	12.5
	HFET (GPM)	000.26	010.62	0452.6	01.65		18.86
HTS MAINT RETEST	FTP CT (grams)	004.93	124.99	2507.5	04.52	03.91	
DATE: 4-28-79	CS (grams)	001.37	051.22	2817.7	02.97	02.56	
ODOM: 19515	HT (grams)	002.98	057.78	2205.2	03.85	03.39	
	COMP (GPM)	000.69	018.39	0687.1	00.95	00.82	12.3
	HFET (GPM)	000.11	004.05	0478.6	00.97		18.27
RETEST	FTP CT (grams)	005.63	095.75	2494.3	05.23	04.35	
DATE: 5-25-79	CS (grams)	000.51	006.49	2901.0	03.87	03.22	
ODOM: 20053	HT (grams)	001.73	023.63	2307.9	04.69	03.96	
	COMP (GPM)	000.52	008.15	0705.2	01.17	00.98	12.3
	HFET (GPM)	000.09	002.28	0483.4	01.15		18.20

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0150.7	00.0	0420.6	0000	00.0
LOW	0111.0	00.1	0477.9	0000	00.0
IDLE	2001.4	03.5	0057.7	0100	03.4
HI	0089.5	00.0	0380.0	0020	00.0
LOW	0037.5	00.0	0279.8	0000	00.0
IDLE	0083.4	00.0	0050.6	0020	00.0
HI	0104.8	00.0	0432.6	0000	00.0
LOW	0156.8	00.0	0415.9	0000	00.1
IDLE	1964.7	03.3	0062.5	0100	03.2
HI	0158.5	00.0	0313.6	0020	00.0
LOW	0094.2	00.0	0318.4	0020	00.0
IDLE	0767.4	00.7	0044.2	0060	00.9
HI	0082.0	00.0	0328.1	0020	00.0
LOW	0057.5	00.0	0313.6	0020	00.0
IDLE	0109.5	00.0	0061.2	0020	00.0

APPENDIX B

EPA NO.: 52004 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1430	230	1350	F	30	65	240	P	15	30	25	P
DEQ CO (%)	5.3	0.3	5.1	F	0.4	0.1	0.6	P	0.3	0.1	0.2	P
DEQ RPM	400	-	400	F	1550	-	900	P	1500	-	1550	F
DEQ QUEUE TIME	5 Minutes				10 Minutes				0 Minutes			
HTS HC (ppm)	750	100	510	-	40	50	240	-	40	60	30	-
HTS CO (%)	1.7	0.2	2.1	-	0.6	0.2	0.5	-	0.5	0.2	0.5	-
HTS NOX (ppm)	160	50	60	-	40	60	50	-	50	50	60	-
HTS RPM	430	-	440	-	1200	-	880	-	1500	-	1570	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	32	42	29.90		47	76	30.00		64	57	30.20	
HTS	74	26	30.06		63	64	30.12		80	38	30.16	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	410		(750)		880				940			
DWELL	N/A				N/A				N/A			
TIMING	+07		(+06)		+03				+04			
MECH ADVANCE	20		(08)		20				21			
TOTAL ADVANCE	30		(32)		22				29			
PROPANE IDLE CK	20				30				50			
DRIVEABILITY												
ENG STARTING	GOOD				GOOD				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	OK				OK				OK			
OVERALL PERF	OK				OK				OK			
IDLE LIMITER CAPS:	OK				MISSING				MISSING			
PROBLEM AREAS:	Idle Speed Mech. Adv. @ 2500				Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist.				Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Service Station	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Rough Idle
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.24	107.50	1689.1	08.22	06.54	
DATE: 2-02-79	CS (grams)	018.51	110.63	1701.7	03.33	02.67	
	HT (grams)	008.65	051.15	1414.0	06.25	05.05	
ODOM: 50090	COMP (GPM)	003.60	024.80	0431.2	01.39	01.11	18.4
	HFET (GPM)	000.53	003.12	0329.2	01.58		26.41
MAINT RETEST	FTP CT (grams)	005.13	097.90	1729.8	07.27	06.60	
DATE: 2-09-79	CS (grams)	008.03	056.90	1863.6	02.83	02.60	
	HT (grams)	006.37	032.65	1513.5	05.65	05.13	
ODOM: 50167	COMP (GPM)	001.85	015.68	0462.7	01.22	01.12	18.0
	HFET (GPM)	000.49	002.96	0335.9	01.54		25.92
RETEST	FTP CT (grams)	004.47	086.90	1753.3	08.99	07.96	
DATE: 5-01.79	CS (grams)	004.20	073.45	1960.1	03.20	02.83	
	HT (grams)	003.49	036.92	1568.9	06.99	06.19	
ODOM: 51742	COMP (GPM)	001.08	017.58	0481.1	01.47	01.30	17.3
	HFET (GPM)	000.37	002.91	0346.3	01.64		25.19

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0481.1	00.1	0353.8	0040	00.1
LOW	1270.3	00.1	0141.3	0120	00.2
IDLE	9992.3	05.2	0026.7	1200	04.5
HI	0334.3	00.1	0296.5	0020	00.1
LOW	0787.0	00.1	0138.9	0050	00.1
IDLE	3210.1	00.7	0055.4	0230	00.8
HI	0331.2	00.1	0408.7	0020	00.1
LOW	0640.2	00.1	0148.5	0030	00.2
IDLE	0936.9	01.3	0088.8	0040	01.1

EPA NO. 52004

APPENDIX B

EPA NO.: 52005 MAKE/MODEL: AUDI/FOX ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	475	155	420	F	40	25	120	P	140	125	160	F
DEQ CO (%)	9.6	3.1	9.4	F	0.1	0.1	0.1	P	4.9	3.0	5.0	F
DEQ RPM	800	-	800	P	900	-	900	P	925	-	975	P
DEQ QUEUE TIME	15 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	240	100	250	-	60	30	50	-	150	210	210	-
HTS CO (%)	5.2	2.8	5.4	-	0.1	0.1	0.1	-	5.0	3.1	5.2	-
HTS NOX (ppm)	130	180	140	-	80	130	100	-	120	190	120	-
HTS RPM	850	-	870	-	860	-	850	-	990	-	1000	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	34	42	29.90		48	76	30.00		58	61	29.70	
HTS	60	58	30.05		63	64	30.00		74	52	29.62	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	830	(875)	850		940
DWELL	56	(50)	57		52
TIMING	-06	(-03)	-06		-05
MECH ADVANCE	22	(24)	24		12
TOTAL ADVANCE	33	(30)	27		27
PROPANE IDLE CK	0		830		0
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	OK		MISSING		MISSING

PROBLEM AREAS:

- Ign. Timing @ Idle
- Dwell
- Spk Plg Firing Volt.
- Rotor Gap Volt.

- Ign. Timing @ Idle
- Spk Plug Firing Volt.
- Rotor Gap Volt.
- Dwell

- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Spark Plug Firing Volt.
- Rotor Gap Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted F.I. Adjusted Spark Plugs Adjusted Plug Wires	Replaced Spark Plugs Replaced Points & Condenser Replaced Intake System Replaced Engine Oil & Oil Filter Adjusted Timing & Valves
PERFORMED BY:	Auto Dealer	Independent Repair Garage
COST:	$6.00	$234.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.15	165.66	1165.6	12.05	09.82	
DATE:2-02-79	CS (grams)	013.25	289.63	1308.9	06.72	05.44	
ODOM:56066	HT (grams)	009.17	154.76	1039.6	11.42	09.17	
	COMP (GPM)	003.10	059.88	0320.4	02.45	01.98	20.9
	HFET (GPM)	001.43	017.37	0229.1	03.23		33.99
MAINT RETEST	FTP CT (grams)	009.14	042.10	1339.1	09.68	08.95	
DATE:2-09-79	CS (grams)	007.67	013.61	1691.2	06.26	05.74	
ODOM:56153	HT (grams)	006.04	009.82	1210.6	11.15	10.10	
	COMP (GPM)	002.01	004.97	0394.3	02.24	02.05	21.7
	HFET (GPM)	000.70	001.91	0246.8	02.74		35.18
RETEST	FTP CT (grams)	009.62	085.45	1131.7	10.12	08.88	
DATE:5-08-79	CS (grams)	014.58	144.86	1343.5	06.15	05.40	
ODOM:58326	HT (grams)	010.10	083.58	0996.8	09.31	08.17	
	COMP (GPM)	003.26	030.57	0319.8	02.11	01.85	23.5
	HFET (GPM)	001.53	011.20	0214.4	02.50		37.44

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2676.8	01.0	2097.1	0130	01.0
LOW	3256.8	02.6	0595.0	0150	02.0
IDLE	9368.9	09.2	0051.5	0530	09.0
HI	1517.1	00.2	1854.4	0070	00.1
LOW	1899.6	00.2	0527.1	0120	00.1
IDLE	1596.7	00.1	0126.7	0160	00.1
HI	4410.5	00.7	1633.5	0180	00.7
LOW	4350.5	01.0	0482.7	0190	01.0
IDLE	2970.1	03.4	0064.9	0150	03.3

EPA NO. 52005

APPENDIX B

EPA NO.: 52006 MAKE/MODEL: PONTIAC/SAFARI WGN ENG:455-4V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	400	220	420	F	90	45	95	P	135	65	200	P
DEQ CO (%)	6.8	0.9	6.3	F	0.0	0.0	0.0	P	0.2	0.4	1.8	P
DEQ RPM	800	-	800	P	800	-	850	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				25 Minutes				0 Minutes			
HTS HC (ppm)	450	340	480	-	280	120	290	-	140	50	160	-
HTS CO (%)	5.1	0.8	6.1	-	0.1	0.6	0.0	-	0.0	0.2	0.0	-
HTS NOX (ppm)	100	210	120	-	70	180	90	-	50	140	50	-
HTS RPM	670	-	720	-	820	-	760	-	740	-	790	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	32	44	29.90	40	69	29.80	60	67	29.95
HTS	63	60	29.97	74	36	29.85	77	55	29.89

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	620	(655)	680		770
DWELL	N/A		N/A		N/A
TIMING	-02	(+16)	-03		-05
MECH ADVANCE	04	(23)	01		02
TOTAL ADVANCE	33	(48)	29		24
PROPANE IDLE CK	0		160		80
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING

PROBLEM AREAS:			
	Fast Idle Speed	Fast Idle Speed	Idle Speed
	Ign. Timing @ Idle	Ign. Timing @ Idle	Fast Idle Speed
	Mech. Adv. @ 2500	Mech. Adv. @ 2500	Ign. Timing @ Idle
	Total Adv. @ 2500	Total Adv. @ 2500	Mech. Adv. @ 2500
	Air Filter	Cyl. Power Dist.	Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs	None
	Replaced Air Filter	
	Adjusted Carburetor	
	Adjusted Choke	
	Adjusted Idle Speed	
	Adjusted Timing	
PERFORMED BY:	Service Station	
COST:	$58.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.87	164.10	2711.7	08.46	07.33	
DATE: 2-07-79	CS (grams)	017.36	303.95	2741.5	04.02	03.49	
ODOM: 61850	HT (grams)	012.63	148.19	2307.6	08.67	07.50	
	COMP (GPM)	004.07	061.20	0696.4	01.68	01.46	11.0
	HFET (GPM)	000.77	010.89	0540.7	02.53		15.83
MAINT RETEST	FTP CT (grams)	008.89	101.16	2941.0	07.10	06.07	
DATE: 2-16-79	CS (grams)	004.76	089.74	3181.7	03.13	02.67	
ODOM: 62132	HT (grams)	006.73	082.96	2502.0	06.54	05.58	
	COMP (GPM)	001.66	024.07	0783.0	01.32	01.13	10.7
	HFET (GPM)	000.51	008.85	0554.5	02.40		15.56
RETEST	FTP CT (grams)	008.76	106.10	2924.7	08.33	07.28	
DATE: 5-08-79	CS (grams)	004.69	057.71	3140.7	03.61	03.16	
ODOM: 64803	HT (grams)	006.21	050.76	2509.2	07.68	06.72	
	COMP (GPM)	001.60	017.64	0777.1	01.54	01.35	10.9
	HFET (GPM)	000.42	005.28	0544.4	02.40		16.01

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0669.5	00.2	0660.6	0040	00.2
LOW	0886.7	00.9	0131.6	0060	01.0
IDLE	4817.3	05.6	0041.8	0300	05.4
HI	0513.4	00.1	0561.1	0020	00.1
LOW	0513.4	00.8	0112.2	0040	00.8
IDLE	0225.8	00.0	0066.1	0020	00.1
HI	0308.4	00.0	0910.5	0050	00.0
LOW	0412.4	00.5	0090.3	0070	00.4
IDLE	0216.6	00.1	0058.8	0050	00.1

EPA NO. 52006

APPENDIX B

EPA NO.: 52007 MAKE/MODEL: AMC/HORNET WGN ENG: 258-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1370	290	1245	F	65	75	195	P	285	170	270	P
DEQ CO (%)	9.7	7.0	9.5	F	0.2	1.6	0.2	P	8.1	8.2	7.6	F
DEQ RPM	300	-	350	P	800	-	800	P	500	-	500	P
DEQ QUEUE TIME	20 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	580	230	570	-	140	60	130	-	270	110	240	-
HTS CO (%)	9.2	7.4	9.3	-	0.9	0.6	0.9	-	6.3	3.7	6.4	-
HTS NOX (ppm)	150	200	140	-	130	480	140	-	90	180	100	-
HTS RPM	480	-	470	-	690	-	700	-	540	-	550	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	85	30.00		46	82	30.05		56	63	29.70	
HTS	78	33	30.12		72	45	30.00		69	55	29.62	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	470	(550)	600	530	
DWELL	N/A		N/A	N/A	
TIMING	+04	(+03)	+03	+03	
MECH ADVANCE	19	(18)	16	16	
TOTAL ADVANCE	32	(34)	39	17	
PROPANE IDLE CK	0		50	0	

DRIVEABILITY			
ENG STARTING	FALSE	HARD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Fast Idle Speed Spark Plg Frng Volt. EGR Air Filters - Cond.	Total Adv. @ 2500 Spark Plg Frng Volt. Air Filter - Cond.	Fast Idle Speed Total Adv. @ 2500 Spark Plg Frng Volt. EGR Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing Adjusted Dwell	Replaced Engine Oil Replaced Oil Filter Adjusted Idle Speed
PERFORMED BY:	Service Station	Owner
COST:	$13.00	$30.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

EPA NO.: 52007 MAKE/MODEL: AMC/HORNET WGN. ENG: 258-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	40	110	P	80	45	100	P
DEQ CO (%)	2.3	0.6	1.6	P	3.0	0.9	2.6	F
DEQ RPM	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	20 Minutes				1 Minute			
HTS HC (ppm)	120	20	110	-	120	20	110	-
HTS CO (%)	2.6	2.4	2.5	-	1.9	0.2	2.1	-
HTS NOX (ppm)	145	330	140	-	120	340	120	-
HTS RPM	780	-	800	-	830	-	860	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	48	30.25	59	51	30.35
HTS	74	33	30.19	70	58	30.31

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(550)	630
DWELL	N/A		N/A
TIMING	+04	(+03)	+06
MECH ADVANCE	19	(18)	19
TOTAL ADVANCE	18	(34)	19
PROPANE IDLE CK	20		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Total Adv. @ 2500
- Spk Plg Frng Volt.
- EGR Hose Cond. & Func. Check

- Ign. Timing @ Idle
- Total Adv. @ 2500
- Spk Plg Frng Volt.
- EGR Valve
- Choke Bound-up

MAINTENANCE

MAINT PRIOR TO RETEST
- Adjusted Carburetor
- Adjusted Choke
- Replaced Air Filter
- Adjusted Idle Speed
- Adjusted Timing

MAINT PRIOR TO RETEST
None

PERFORMED BY: HTS
COST: $6.00
MANHOURS: 3 Hours
OWNER'S DRIVEABILITY EVAL: Hardstarting
OWNER SATISFIED WITH VEH: N/A Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	025.16	220.86	1205.4	03.68	03.24	
DATE: 2-07-79	CS (grams)	028.82	601.65	1169.0	02.32	02.03	
	HT (grams)	018.71	297.07	1169.9	08.09	07.08	
ODOM: 72027	COMP (GPM)	006.71	115.46	0313.9	01.14	00.99	17.2
	HFET (GPM)	003.07	083.80	0277.7	01.57		21.16
MAINT RETEST	FTP CT (grams)	011.26	356.05	1577.8	06.92	05.95	
DATE: 2-27-79	CS (grams)	007.21	082.20	1867.0	10.76	09.24	
	HT (grams)	006.10	014.64	1516.7	20.39	17.52	
ODOM: 72986	COMP (GPM)	002.07	032.49	0454.7	03.38	02.91	17.3
	HFET (GPM)	001.10	004.97	0361.4	05.65		23.80
RETEST	FTP CT (grams)	017.11	653.01	1412.0	03.40	02.96	
DATE: 5-08-79	CS (grams)	013.71	481.70	1566.7	02.97	02.58	
	HT (grams)	007.20	143.08	1581.6	11.34	09.78	
ODOM: 76834	COMP (GPM)	003.36	112.54	0410.0	01.45	01.26	14.8
	HFET (GPM)	001.19	022.10	0388.6	03.03		20.76
HTS MAINT RETEST	FTP CT (grams)	005.35	094.32	1778.8	10.71	09.24	
DATE: 5-09-79	CS (grams)	004.86	079.10	1953.5	06.33	05.42	
	HT (grams)	004.30	013.78	1622.6	08.74	07.59	
ODOM: 76872	COMP (GPM)	001.28	017.00	0485.8	02.12	01.83	17.2
	HFET (GPM)	000.32	005.17	0365.9	02.63		23.65
RETEST	FTP CT (grams)	018.24	842.58	1280.2	01.55	01.39	
DATE: 6-06-79	CS (grams)	015.53	670.56	1565.6	01.81	01.61	
	HT (grams)	014.20	691.47	1223.3	01.54	01.39	
ODOM: 78625	COMP (GPM)	004.20	190.27	0375.1	00.45	00.40	12.9
	HFET (GPM)	002.41	125.82	0279.5	00.52		18.29

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2870.0	03.5	0898.1	0140	03.4
LOW	6471.2	04.6	0339.5	0450	02.3
IDLE	9992.3	08.6	0050.6	0800	08.0
HI	1238.6	00.1	2436.8	0060	00.1
LOW	1575.2	00.1	1153.1	0100	00.1
IDLE	4087.1	00.1	0124.3	0420	00.1
HI	1027.5	00.5	1187.1	0040	00.5
LOW	2666.6	01.0	0682.4	0150	01.2
IDLE	5027.4	07.0	0087.9	0300	07.0
HI	0218.0	00.1	0993.6	0020	00.1
LOW	1040.9	00.2	0590.1	0060	00.3
IDLE	2463.3	03.4	0112.7	0160	03.3
HI	3060.1	07.0	0177.1	0160	06.6
LOW	3140.1	06.2	0153.2	0180	05.9
IDLE	2970.1	04.6	0119.8	0170	04.4

EPA NO. 52007

APPENDIX B

EPA NO.: 52008 MAKE/MODEL: BUICK/SKYLARK ENG: 231-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	85	25	165	P	50	30	95	P	85	45	100	P
DEQ CO (%)	1.3	0.0	1.4	F	0.2	0.0	0.4	P	1.4	0.1	1.6	F
DEQ RPM	1100	-	1100	F	925	-	925	P	950	-	1000	P
DEQ QUEUE TIME	25 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	90	40	100	-	40	50	40	-	70	30	100	-
HTS CO (%)	0.7	0.0	1.3	-	0.0	0.0	0.0	-	0.3	0.0	0.5	-
HTS NOX (ppm)	100	130	110	-	90	110	100	-	70	290	100	-
HTS RPM	1020	-	1050	-	860	-	880	-	870	-	930	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	79	29.95		48	78	29.65		64	51	29.99	
HTS	73	39	30.17		70	45	29.71		82	33	29.93	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	690	(700)	630	600	
DWELL	N/A		N/A	N/A	
TIMING	+12	(+12)	+12	+11	
MECH ADVANCE	17	(23)	17	17	
TOTAL ADVANCE	34	(41)	35	33	
PROPANE IDLE CK	90		110	90	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Mech. Adv. @ 2500 Total Adv. @ 2500		Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist.	Mech. Adv. @ 2500 Total Adv. @ 2500	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Replaced Engine Oil Adjusted Timing Adjusted Carburetor	None
PERFORMED BY:	Auto Dealer	
COST:	$20.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.13	082.39	1969.6	13.67	12.76	
DATE:2-08-79	CS (grams)	003.37	051.42	2153.3	05.48	05.08	
ODOM:24899	HT (grams)	004.39	034.45	1783.2	09.30	08.62	
	COMP (GPM)	001.19	014.20	0535.6	02.22	02.06	15.8
	HFET (GPM)	000.17	003.98	0363.6	01.94		23.94
MAINT RETEST	FTP CT (grams)	006.67	106.13	1936.9	32.35	27.30	
DATE:2-14-79	CS (grams)	003.97	054.81	2039.7	24.16	20.25	
ODOM:25000	HT (grams)	002.60	022.74	1744.8	31.39	26.49	
	COMP (GPM)	001.11	015.12	0515.6	07.46	06.28	16.3
	HFET (GPM)	000.13	000.88	0381.8	08.92		23.12
RETEST	FTP CT (grams)	006.94	123.03	1875.4	11.42	10.62	
DATE:5-04-79	CS (grams)	004.35	074.18	2071.1	04.18	03.88	
ODOM:25819	HT (grams)	003.13	038.38	1724.4	06.99	06.50	
	COMP (GPM)	001.22	019.86	0514.7	01.74	01.62	16.1
	HFET (GPM)	000.16	002.68	0361.7	01.94		24.20

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0141.5	00.0	0991.2	0020	00.0
LOW	0150.7	00.0	0208.2	0020	00.0
IDLE	2212.5	01.7	0267.8	0160	01.8
HI	0328.1	00.0	2397.4	0040	00.0
LOW	0245.5	00.0	2397.4	0040	00.0
IDLE	2129.9	01.6	0337.1	0150	01.6
HI	0265.6	00.0	0762.5	0030	00.0
LOW	0241.1	00.0	0209.2	0030	00.0
IDLE	2496.3	01.9	0206.8	0190	02.0

EPA NO. 52008

APPENDIX B

EPA NO.: 52009 MAKE/MODEL: FORD/MAVERICK ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	30	55	P	50	35	75	P	30	15	50	P
DEQ CO (%)	2.2	0.2	1.9	F	0.4	0.1	0.6	P	0.9	0.1	0.6	P
DEQ RPM	600	-	600	P	800	-	750	P	650	-	650	P
DEQ QUEUE TIME	15 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	100	60	90	-	100	30	80	-	50	20	60	-
HTS CO (%)	2.3	0.1	1.7	-	0.7	0.1	0.4	-	0.5	0.1	0.3	-
HTS NOX (ppm)	60	140	80	-	60	180	70	-	40	120	50	-
HTS RPM	660	-	670	-	600	-	600	-	640	-	640	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	50	77	30.00		40	70	29.80		59	69	30.04	
HTS	70	55	30.06		73	22	29.85		70	55	29.95	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	590	(665)	600		570
DWELL	N/A		N/A		N/A
TIMING	+01	(+06)	000		+02
MECH ADVANCE	12	(15)	10		10
TOTAL ADVANCE	19	(36)	37		16
PROPANE IDLE CK	0		60		120
DRIVEABILITY					
ENG STARTING	HARD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	SURGES, STUMBLES DIESELS		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING

PROBLEM AREAS:	Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Firing Volt. Cyl. Power Dist. Air Filters - Cond.	Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Spark Plg. Frng Volt. Air Filters - Cond.	Idle Speed Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. Air Filters - Cond.
MAINTENANCE	MAINT TO PASS DEQ Adjusted Carburetor		MAINT PRIOR TO RETEST None
PERFORMED BY:	Auto Dealer		
COST:	$9.00		
OWNER'S DRIVEABILITY EVAL:	No Major Problems		No Major Problems
OWNER SATISFIED WITH VEH:	Yes		Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.62	096.09	2749.9	09.37	08.52	
DATE: 2-12-79	CS (grams)	006.77	100.36	2940.9	06.03	05.52	
ODOM: 20447	HT (grams)	007.48	060.14	2273.0	08.92	08.17	
	COMP (GPM)	002.14	023.46	0722.5	02.02	01.85	11.6
	HFET (GPM)	001.15	004.34	0497.1	03.75		17.47
MAINT RETEST	FTP CT (grams)	028.03	125.24	2909.7	13.22	11.57	
DATE: 2-16-79	CS (grams)	004.41	059.05	2923.7	06.72	05.84	
ODOM: 20547	HT (grams)	007.46	037.01	2335.0	10.86	09.50	
	COMP (GPM)	002.76	017.87	0734.1	02.48	02.16	11.5
	HFET (GPM)	001.01	003.79	0494.3	04.07		17.62
RETEST	FTP CT (grams)	007.87	106.12	2697.2	11.99	10.85	
DATE: 5-05-79	CS (grams)	003.90	053.89	3084.3	07.01	06.30	
ODOM: 21333	HT (grams)	004.92	037.99	2339.5	11.05	10.11	
	COMP (GPM)	001.34	016.16	0743.7	02.46	02.23	11.5
	HFET (GPM)	000.85	004.19	0491.1	04.44		17.72

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0621.8	00.1	0392.0	0060	00.2
LOW	0811.5	00.1	0253.5	0080	00.2
IDLE	1631.3	01.9	0062.5	0120	01.5
HI	0364.9	00.1	0518.5	0000	00.0
LOW	0643.2	00.1	0313.2	0060	00.1
IDLE	1331.5	00.7	0084.0	0100	00.8
HI	0504.2	00.1	0665.4	0040	00.1
LOW	0461.4	00.1	0313.6	0050	00.2
IDLE	1177.4	00.7	0083.0	0100	00.7

EPA NO. 52009

APPENDIX B

EPA NO.: 52010 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 400-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	330	310	345	F	35	30	30	P	230	85	280	F
DEQ CO (%)	0.0	0.0	0.1	P	0.0	0.3	0.0	P	2.3	1.0	1.1	F
DEQ RPM	700	-	700	P	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				35 Minutes				5 Minutes			
HTS HC (ppm)	300	40	270	-	40	30	30	-	100	50	60	-
HTS CO (%)	0.3	0.0	0.1	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	190	80	-	70	160	100	-	100	220	100	-
HTS RPM	680	-	700	-	710	-	770	-	800	-	770	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	50	78	30.20		43	64	29.65		72	38	30.15	
HTS	65	61	30.08		67	45	29.56		86	58	30.11	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	660	(655)	690	590
DWELL	N/A		N/A	N/A
TIMING	+15	(+16)	-05	+16
MECH ADVANCE	25	(25)	-02	22
TOTAL ADVANCE	51	(50)	25	48
PROPANE IDLE CK	100		100	100
DRIVEABILITY				
ENG STARTING	GOOD		HARD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	STUMBLES		STUMBLES, ENG. MISS	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Fast Idle Speed Heat Riser		Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Heat Riser	Fast Idle Speed Mech. Adv. @ 2500 Vacuum Hoses Heat Riser Auto Choke Movement

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Spark Plug Wires Adjusted Carburetor Adjusted Choke Adjusted Idle Speed Adjusted Timing	Replaced Spark Plugs Adjusted Carburetor Adjusted Idle Speed Adjusted Timing
PERFORMED BY:	Service Station	Auto Dealer
COST:	$56.00	$40.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.76	140.02	2680.6	06.48	05.88	
	CS (grams)	009.84	106.74	2387.1	05.26	04.82	
DATE: 2-12-79	HT (grams)	005.89	049.85	2141.6	06.77	06.20	
ODOM: 46148	COMP (GPM)	002.66	026.05	0634.7	01.59	01.45	13.0
	HFET (GPM)	000.25	001.68	0493.1	02.34		17.86
MAINT RETEST	FTP CT (grams)	030.36	825.81	4355.9	07.50	06.41	
	CS (grams)	004.30	251.52	3967.8	04.60	04.00	
DATE: 2-23-79	HT (grams)	006.87	364.60	3282.5	05.20	04.47	
ODOM: 46349	COMP (GPM)	002.84	108.59	1028.2	01.44	01.24	07.3
	HFET (GPM)	001.12	072.54	0802.8	01.22		09.64
RETEST	FTP CT (grams)	010.92	098.61	2234.9	16.99	17.28	
	CS (grams)	007.60	064.63	2413.6	12.45	12.66	
DATE: 6-01-79	HT (grams)	007.16	043.97	2056.6	19.76	20.26	
ODOM: 48904	COMP (GPM)	002.18	017.61	0606.2	04.14	04.22	13.8
	HFET (GPM)	000.23	001.78	0475.7	03.03		18.50

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0609.6	00.0	0563.9	0060	00.0
LOW	0701.3	00.0	0685.6	0100	00.0
IDLE	3460.2	02.7	0072.1	0250	02.5
HI	0397.1	01.7	0318.4	0010	01.8
LOW	0369.6	01.2	0340.3	0010	01.2
IDLE	0048.3	00.0	0131.6	0000	00.0
HI	0248.6	00.0	1824.5	0020	00.0
LOW	0181.3	00.0	0993.6	0020	00.0
IDLE	2539.8	01.4	0107.9	0180	01.4

EPA NO. 52010

APPENDIX B

EPA NO.: 52011 MAKE/MODEL: CHEV/VEGA WGN ENG: 140-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	435	60	410	F	130	165	110	P	200	45	265	P
DEQ CO (%)	7.4	0.0	7.5	F	0.0	0.0	0.0	P	1.5	0.1	1.8	P
DEQ RPM	810	-	810	P	1000	-	1050	P	1050	-	1100	P
DEQ QUEUE TIME	7 Minutes				45 Minutes				0 Minutes			
HTS HC (ppm)	730	230	710	-	300	160	210	-	300	100	200	-
HTS CO (%)	9.8	0.1	9.8	-	1.4	0.1	0.1	-	0.6	0.0	0.5	-
HTS NOX (ppm)	140	200	140	-	170	170	150	-	130	150	120	-
HTS RPM	820	-	820	-	1080	-	1080	-	1100	-	1090	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	42	78	29.75		42	68	29.65		58	51	30.00	
HTS	68	41	29.94		69	43	29.58		74	33	29.94	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	640	(755)	720	770
DWELL	N/A		N/A	N/A
TIMING	+21	(+12)	+27	+27
MECH ADVANCE	31	(20)	32	32
TOTAL ADVANCE	46	(45)	44	53
PROPANE IDLE CK	0		130	60

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	FALSE
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	SURGES, STUMBLES, BACKFIRE

IDLE LIMITER CAPS: MISSING | MISSING | MISSING

PROBLEM AREAS:			
	Fast Idle Speed	Ign. Timing @ Idle	Fast Idle Speed
	Idle Speed	Mech. Adv. @ 2500	Ign. Timing @ Idle
	Ign. Timing @ Idle		Mech. Adv. @ 2500
	Mech. Adv. @ 2500		Total Adv. @ 2500
	Air Filters - Cond.		
	Auto Choke - Movement		

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Engine Oil
	Adjusted Idle Speed	Replaced Oil Filter
	Adjusted Timing	
PERFORMED BY:	Service Station	Independent Repair Garage
COST:	$7.00	$15.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.63	159.37	1464.8	09.44	07.93	
DATE: 2-15-79	CS (grams)	014.81	230.37	1334.3	05.33	04.56	
	HT (grams)	009.74	119.38	1236.8	09.00	07.64	
ODOM: 31192	COMP (GPM)	003.61	048.93	0355.9	01.94	01.64	20.0
	HFET (GPM)	000.48	004.01	0295.3	02.33		29.25
MAINT RETEST	FTP CT (grams)	061.94	139.49	1522.6	10.62	09.15	
DATE: 2-22-79	CS (grams)	004.22	051.79	1618.9	06.12	05.31	
	HT (grams)	003.17	036.54	1380.3	08.66	07.51	
ODOM: 31342	COMP (GPM)	004.35	017.68	0408.1	02.08	01.80	19.7
	HFET (GPM)	000.13	001.02	0321.5	02.16		27.42
RETEST	FTP CT (grams)	006.93	083.23	1456.6	08.63	07.45	
DATE: 5-09-79	CS (grams)	002.90	030.22	1508.6	05.85	05.05	
	HT (grams)	002.10	019.49	1325.8	07.63	06.53	
ODOM: 33092	COMP (GPM)	000.94	010.28	0385.4	01.85	01.60	21.9
	HFET (GPM)	000.07	000.43	0292.5	01.70		30.23

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0207.4	00.0	1145.9	0010	00.0
LOW	2799.2	01.2	0798.9	0180	01.0
IDLE	9989.2	10.9	0032.1	1000	10.0
HI	0109.5	00.0	0869.2	0020	00.0
LOW	0192.1	00.0	0959.0	0030	00.0
IDLE	3356.8	02.1	0267.5	0250	02.2
HI	0071.2	00.0	0497.0	0010	00.0
LOW	0138.5	00.0	0948.3	0020	00.0
IDLE	1989.2	00.8	0358.6	0160	00.8

EPA NO. 52011

APPENDIX B

EPA NO.: 52012 MAKE/MODEL: AUDI/FOX ENG: 97-FI TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	75	75	85	P	35	75	40	P	175	225	185	P
DEQ CO (%)	2.1	0.4	2.8	F	0.2	0.1	0.1	P	1.7	0.2	1.8	P
DEQ RPM	1050	-	1050	P	1150	-	1150	P	1000	-	1000	P
DEQ QUEUE TIME	5 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	120	40	90	-	260	60	100	-	160	50	160	-
HTS CO (%)	1.1	0.2	1.7	-	0.2	0.1	0.3	-	1.0	0.2	1.0	-
HTS NOX (ppm)	60	160	60	-	80	180	90	-	80	180	90	-
HTS RPM	850	-	900	-	970	-	1070	-	850	-	870	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	42	78	29.75		49	71	29.95		63	44	30.25	
HTS	68	41	29.94		61	49	29.90		74	39	30.15	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	800	(875)	950		830
DWELL	50	(50)	52		51
TIMING	000	(-03)	000		-04
MECH ADVANCE	27	(24)	24		18
TOTAL ADVANCE	29	(30)	26		32
PROPANE IDLE CK	100		900		100
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	FI		FI		FI
PROBLEM AREAS:	Ign. Timing @ Idle Spk Plg. Frng Volt. Rotor Gap Volt.		Ign. Timing @ Idle Spk Plg. Frng Volt. Rotor Gap Volt.		Mech. Adv. @ 2500 Spk Plg. Frng Volt. Rotor Gap Volt. EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs	None
	Replaced Points & Condenser	
	Replaced Air Filter	
	Replaced Engine Oil & EGR	
	Adjusted Carburetor & Idle Speed	
	Adjusted Timing & Dwell	
PERFORMED BY:	Auto Dealer	
COST:	$68.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.81	056.61	1133.6	13.39	11.63	
DATE: 2-15-79	CS (grams)	004.90	051.31	1342.9	08.88	07.66	
	HT (grams)	005.09	029.64	1018.4	13.71	11.83	
ODOM: 38844	COMP (GPM)	001.37	012.34	0321.4	02.99	02.59	25.7
	HFET (GPM)	001.00	003.78	0206.8	03.42		41.08
MAINT RETEST	FTP CT (grams)	007.00	048.72	1328.3	14.52	12.46	
DATE: 2-26-79	CS (grams)	003.69	013.67	1694.7	08.89	07.70	
	HT (grams)	004.11	011.61	1189.4	14.14	12.21	
ODOM: 38991	COMP (GPM)	001.21	005.50	0392.5	03.09	02.67	21.9
	HFET (GPM)	000.67	002.00	0228.1	03.29		38.00
RETEST	FTP CT (grams)	006.78	041.18	1178.9	11.19	10.28	
DATE: 5-22-79	CS (grams)	006.44	023.84	1461.5	07.25	06.66	
	HT (grams)	005.11	013.92	1089.6	11.46	10.61	
ODOM: 39327	COMP (GPM)	001.64	006.60	0345.3	02.48	02.28	24.6
	HFET (GPM)	000.73	001.79	0221.9	02.63		39.06

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2077.9	00.2	2187.3	0100	00.2
LOW	1897.4	00.1	0855.2	0100	00.2
IDLE	1857.6	01.9	0112.7	0090	01.9
HI	1628.2	00.2	2151.5	0070	00.2
LOW	1628.2	00.1	0678.5	0080	00.1
IDLE	1435.5	00.2	0095.9	0080	00.2
HI	1602.8	00.1	1907.8	0100	00.2
LOW	1621.1	00.1	0672.7	0110	00.1
IDLE	1058.1	00.7	0073.3	0300	00.8

EPA NO. 52012

APPENDIX B

EPA NO.: 52013 MAKE/MODEL: FORD/MAVERICK ENG: 250-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	60	40	70	P	60	75	45	P	35	30	45	P
DEQ CO (%)	2.0	0.2	1.8	F	0.5	0.1	0.3	P	0.7	0.4	0.9	P
DEQ RPM	750	-	750	P	800	-	800	P	775	-	850	P
DEQ QUEUE TIME	15 Minutes				10 Minutes				10 Minutes			
HTS HC (ppm)	90	40	80	-	80	50	80	-	100	40	60	-
HTS CO (%)	2.2	0.2	1.9	-	0.2	0.1	0.4	-	0.3	0.1	0.5	-
HTS NOX (ppm)	70	350	80	-	70	300	80	-	55	220	65	-
HTS RPM	680	-	700	-	710	-	740	-	760	-	780	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	77	29.70		44	68	29.70		61	47	30.40	
HTS	75	30	29.96		70	48	29.61		83	43	30.31	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED		530	(600)			560				590		
DWELL		N/A				N/A				N/A		
TIMING		+07	(+06)			+13				+06		
MECH ADVANCE		17	(21)			23				30		
TOTAL ADVANCE		29	(29)			30				30		
PROPANE IDLE CK		0				110				60		
DRIVEABILITY												
ENG STARTING		GOOD				GOOD				GOOD		
TRANSMISSION		OK				OK				OK		
CLUTCH		N/A				N/A				N/A		
BRAKES		OK				OK				OK		
OVERALL PERF		OK				OK				OK		
IDLE LIMITER CAPS:		MISSING				MISSING				MISSING		
PROBLEM AREAS:	Idle Speed Mech. Adv. @ 2500 Spark Plg Frng Volt. EGR - Plugged				Ign. Timing @ Idle Spark Plg Frng Volt. EGR - Plugged				Mech. Adv. @ 2500 EGR - Plugged			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$11.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.43	127.39	2040.7	22.74	19.96	
DATE: 2-15-79	CS (grams)	007.49	125.71	2001.7	15.42	13.39	
	HT (grams)	005.84	069.72	1752.9	21.06	18.49	
ODOM: 38842	COMP (GPM)	001.87	029.36	0517.1	04.96	04.34	15.6
	HFET (GPM)	000.52	006.80	0439.0	05.72		19.65
MAINT RETEST	FTP CT (grams)	006.99	125.68	2120.8	24.87	21.04	
DATE: 2-23-79	CS (grams)	007.17	036.13	2074.7	18.77	15.88	
	HT (grams)	005.72	034.14	1798.4	23.73	20.08	
ODOM: 39034	COMP (GPM)	001.79	014.62	0534.9	05.73	04.85	15.7
	HFET (GPM)	000.66	003.55	0426.7	06.06		20.42
RETEST	FTP CT (grams)	006.01	122.45	1947.5	18.57	17.13	
DATE: 5-15-79	CS (grams)	006.42	064.30	1894.5	13.65	12.36	
	HT (grams)	004.86	031.29	1700.9	18.39	16.65	
ODOM: 41477	COMP (GPM)	001.57	017.97	0493.5	04.28	03.90	16.8
	HFET (GPM)	000.50	003.73	0404.2	04.63		21.54

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0481.1	00.1	1435.3	0030	00.1
LOW	1291.7	00.3	1062.9	0080	00.3
IDLE	1456.9	02.3	0064.9	0100	02.2
HI	0492.0	00.1	1636.0	0030	00.1
LOW	1247.8	00.1	1327.8	0080	00.1
IDLE	0770.5	00.4	0092.8	0050	00.4
HI	0364.9	00.1	1129.7	0020	00.1
LOW	1120.4	00.1	1000.8	0080	00.1
IDLE	1175.5	01.1	0119.8	0090	01.0

EPA NO. 52013

APPENDIX B

EPA NO.: 52014 MAKE/MODEL: BUICK/SKYLARK ENG: 231-2 TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	130	70	180	F	40	35	60	P	25	30	25	P
DEQ CO (%)	4.7	0.1	4.8	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1050	-	1050	P	850	-	850	P	1050	-	1050	P
DEQ QUEUE TIME	10 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	500	90	250	-	40	20	30	-	50	30	40	-
HTS CO (%)	9.7	0.0	5.2	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	160	90	-	90	120	90	-	110	150	120	-
HTS RPM	680	-	1050	-	840	-	850	-	1000	-	1020	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	77	29.70		44	66	29.70		60	31	30.25	
HTS	75	40	29.96		79	37	29.64		80	29	30.28	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	650	(700)	500	690
DWELL	N/A		N/A	N/A
TIMING	+12	(+12)	+11	+12
MECH ADVANCE	23	(24)	17	17
TOTAL ADVANCE	41	(42)	35	35
PROPANE IDLE CK	0		100	190
DRIVEABILITY				
ENG STARTING	GOOD		HARD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		STUMBLES	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	None		Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Air Filters - Cond.	Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Repaired Carburetor
PERFORMED BY:	Independent Repair Garage	Independent Repair Garage
COST:	$9.00	$35.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.45	296.18	1824.2	13.41	11.38	
DATE: 2-15-79	CS (grams)	008.90	252.47	2011.3	03.98	03.38	
	HT (grams)	006.08	137.25	1712.8	07.37	06.29	
ODOM: 28332	COMP (GPM)	002.42	061.07	0502.9	01.86	01.58	14.6
	HFET (GPM)	000.24	005.42	0389.7	02.39		22.23
MAINT RETEST	FTP CT (grams)	015.21	201.35	1916.4	13.40	11.81	
DATE: 2-26-79	CS (grams)	004.14	042.20	2623.6	08.13	07.17	
	HT (grams)	002.34	030.67	1807.5	07.94	07.00	
ODOM: 28583	COMP (GPM)	001.60	019.50	0597.0	02.46	02.17	14.0
	HFET (GPM)	000.12	001.68	0406.1	02.56		21.68
RETEST	FTP CT (grams)	008.76	173.48	1871.0	11.24	09.89	
DATE: 5-11-79	CS (grams)	000.76	008.63	2234.8	05.15	04.50	
	HT (grams)	005.03	017.09	1799.2	07.35	06.47	
ODOM: 30594	COMP (GPM)	000.99	012.40	0542.0	01.89	01.66	15.7
	HFET (GPM)	000.10	001.16	0375.9	02.17		23.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0537.9	00.0	1022.1	0050	00.0
LOW	0339.0	00.0	0243.2	0020	00.0
IDLE	4367.2	05.6	0085.5	0190	05.4
HI	0156.8	00.0	0996.0	0020	00.0
LOW	0098.7	00.0	0208.2	0020	00.0
IDLE	0071.2	00.0	0146.1	0040	00.0
HI	0117.1	00.0	0805.0	0020	00.0
LOW	0098.7	00.0	0222.5	0020	00.0
IDLE	0303.7	00.2	0172.3	0040	00.2

EPA NO. 52014

EPA NO.: 52015 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	60	45	80	P	180	65	225	P	970	710	1105	F
DEQ CO (%)	0.7	0.2	0.7	P	0.3	0.6	0.4	P	1.7	0.9	1.4	P
DEQ RPM	1200	-	1200	F	850	-	850	P	850	-	850	P
DEQ QUEUE TIME	10 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	140	90	140	-	200	50	120	-	350	80	330	-
HTS CO (%)	1.1	0.3	1.0	-	1.3	0.3	0.4	-	0.5	0.3	0.5	-
HTS NOX (ppm)	80	220	90	-	40	180	60	-	60	220	60	-
HTS RPM	1350	-	1100	-	570	-	790	-	770	-	750	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	41	74	29.80		60	54	30.10		66	32	30.35	
HTS	72	38	29.88		70	55	30.02		76	31	30.28	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	1000	(700)	690	690
DWELL	43	(52)	43	44
TIMING	+15	(+10)	+11	+16
MECH ADVANCE	36	(23)	29	31
TOTAL ADVANCE	47	(41)	44	56
PROPANE IDLE CK	0		0	0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	OK	OK	OK
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING MISSING MISSING

PROBLEM AREAS:			
	Idle Speed	Mech. Adv. @ 2500	Ign. Timing @ Idle
	Ign. Timing @ Idle	EGR	Mech. Adv. @ 2500
	Mech. Adv. @ 2500	Dwell	Total Adv. @ 2500
	Total Adv. @ 2500		Dwell
	Dwell		EGR
	EGR		

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.65	068.54	1134.3	18.84	16.46	
DATE: 2-16-79	CS (grams)	005.20	040.22	1258.6	11.01	09.72	
ODOM: 48577	HT (grams)	006.58	041.15	0933.0	16.48	14.50	
	COMP (GPM)	001.52	012.42	0303.8	03.80	03.34	27.0
	HFET (GPM)	000.96	005.76	0210.6	05.67		39.82
MAINT RETEST	FTP CT (grams)	017.25	074.46	1103.2	18.64	16.61	
DATE: 3-15-79	CS (grams)	010.93	039.68	1172.7	09.21	08.21	
ODOM: 49484	HT (grams)	007.80	046.85	0937.6	16.31	14.53	
	COMP (GPM)	003.04	013.12	0290.9	03.54	03.15	27.6
	HFET (GPM)	001.08	005.93	0214.8	05.97		38.96
RETEST	FTP CT (grams)	006.61	061.48	1068.3	17.32	15.49	
DATE: 5-30-79	CS (grams)	007.58	041.45	1160.8	10.99	09.82	
ODOM: 52786	HT (grams)	006.63	038.10	0949.0	17.74	15.75	
	COMP (GPM)	001.89	011.95	0288.1	03.81	03.39	28.3
	HFET (GPM)	001.06	007.20	0206.6	05.86		40.08

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1564.0	00.3	2397.4	0100	00.4
LOW	1716.9	00.1	1805.4	0130	00.1
IDLE	2084.0	01.7	0069.7	0160	01.6
HI	1737.4	00.4	2436.8	0120	00.4
LOW	1318.2	00.1	1289.0	0100	00.1
IDLE	1033.6	00.4	0124.3	0080	00.4
HI	2119.9	00.6	2436.8	0150	00.7
LOW	1651.7	00.1	1284.2	0140	00.2
IDLE	1492.6	00.4	0143.7	0130	00.4

EPA NO. 52015

APPENDIX B

EPA NO.: 52016 MAKE/MODEL: TOYOTA/CORONA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	25	25	P	15	20	25	P	10	15	25	P
DEQ CO (%)	0.4	0.4	0.4	P	0.5	0.3	0.5	P	0.6	0.2	0.5	P
DEQ RPM	1350	-	1350	F	1000	-	1000	P	1100	-	1125	P
DEQ QUEUE TIME	7 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	30	30	20	-	30	20	20	-	30	37	30	-
HTS CO (%)	0.7	0.5	0.6	-	0.9	0.3	0.7	-	0.8	0.9	0.7	-
HTS NOX (ppm)	60	140	60	-	60	180	60	-	50	210	60	-
HTS RPM	1760	-	1340	-	830	-	840	-	1090	-	1070	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	42	75	29.85		44	80	30.05		62	44	30.35	
HTS	69	43	29.83		55	55	29.97		81	41	30.29	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	1220	(855)	830	1000
DWELL	50	(52)	50	50
TIMING	+12	(+10)	+08	000
MECH ADVANCE	18	(25)	22	11
TOTAL ADVANCE	38	(39)	46	36
PROPANE IDLE CK	30		0	0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	SHIFTS HARD	OK	OK
CLUTCH	OK	OK	OK
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	BACKFIRES

IDLE LIMITER CAPS: MISSING | MISSING | MISSING

PROBLEM AREAS:

- Initial: Idle Speed; Air Filters - Cond.; Ign. Timing @ Idle; Mech. Adv. @ 2500; Spk Plg. Frng Volt.
- Maint Retest: Spk Plg Frng Volt.; Rotor Gap Volt.; Air Filters - Cond.
- Retest: Idle Speed; Ign. Timing @ Idle; Mech. Adv. @ 2500; Total Adv. @ 2500; Rotor Gap Volt.; Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Owner	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.86	089.34	1489.8	18.25	15.83	
DATE: 2-20-79	CS (grams)	002.35	092.93	1737.9	10.08	08.69	
ODOM: 62858	HT (grams)	002.46	050.08	1400.1	18.99	16.37	
	COMP (GPM)	000.72	021.32	0423.5	03.83	03.31	19.3
	HFET (GPM)	000.43	009.80	0263.6	04.86		31.63
MAINT RETEST	FTP CT (grams)	005.78	083.90	1482.2	20.11	17.05	
DATE: 2-27-79	CS (grams)	004.90	088.38	1693.8	10.44	08.91	
ODOM: 62994	HT (grams)	004.08	044.53	1322.7	19.79	16.89	
	COMP (GPM)	001.29	019.98	0411.4	04.05	03.45	19.8
	HFET (GPM)	000.43	008.15	0260.3	05.23		32.30
RETEST	FTP CT (grams)	006.20	093.40	1487.3	21.36	19.92	
DATE: 5-22-79	CS (grams)	003.40	097.01	1693.9	11.37	10.61	
ODOM: 64925	HT (grams)	003.37	048.12	1333.9	21.35	19.53	
	COMP (GPM)	001.07	021.95	0412.5	04.36	04.04	19.7
	HFET (GPM)	000.40	008.77	0251.7	04.70		33.24

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0594.3	00.3	2075.1	0030	00.4
LOW	0517.8	01.2	0587.8	0040	01.2
IDLE	0150.7	00.4	0074.5	0020	00.4
HI	0758.2	00.3	2201.4	0040	00.3
LOW	0638.9	01.2	0599.9	0040	01.1
IDLE	0317.6	00.4	0066.1	0020	00.4
HI	0560.6	00.4	1872.2	0040	00.4
LOW	0634.0	01.2	0571.0	0040	01.0
IDLE	0181.3	00.4	0067.3	0020	00.4

EPA NO. 52016

APPENDIX B

EPA NO.: 52017 MAKE/MODEL: FORD/MAVERICK ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	40	45	P								
DEQ CO (%)	1.4	0.6	1.4	F								
DEQ RPM	1000	-	1000	F	No Retest - Vehicle							
DEQ QUEUE TIME	10 Minutes				Dropped from Program							
HTS HC (ppm)	70	30	50	-								
HTS CO (%)	2.0	0.2	1.4	-								
HTS NOX (ppm)	60	260	70	-								
HTS RPM	750	-	960	-								
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	69	29.75									
HTS	75	40	29.70									

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	640	(600)
DWELL	N/A	
TIMING	+06	(+06)
MECH ADVANCE	21	(21)
TOTAL ADVANCE	29	(29)
PROPANE IDLE CK	0	

DRIVEABILITY	
ENG STARTING	HARD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: None

MAINTENANCE

MAINT TO PASS DEQ

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.86	149.53	2454.4	18.39	16.11	
	CS (grams)	004.48	193.54	2420.9	10.71	09.44	
DATE: 2-22-79	HT (grams)	004.97	109.32	2085.3	16.45	14.61	
ODOM: 59704	COMP (GPM)	001.31	042.69	0622.0	03.73	03.29	12.8
	HFET (GPM)	000.25	004.65	0484.0	05.27		18.02
MAINT RETEST	FTP CT (grams)						
	CS (grams)						
DATE:	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						
RETEST	FTP CT (grams)						
	CS (grams)						
DATE:	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0358.7	00.1	1416.2	0020	00.1
LOW	0389.3	00.6	0711.9	0025	00.6
IDLE	0823.7	01.8	0110.3	0050	01.6
HI					
LOW					
IDLE					
HI					
LOW					
IDLE					

EPA NO. 52017

APPENDIX B

EPA NO.: 52018 MAKE/MODEL: CHEV/VEGA WGN ENG: 140-2V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	170	90	220		55	40	45	P	250	70	295	F
DEQ CO (%)	4.3	1.4	4.1	F	0.7	0.1	0.0	P	6.7	0.1	6.2	F
DEQ RPM	900	-	900	P	900	-	900	P	750	-	750	P
DEQ QUEUE TIME	15 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	270	110	230	-	50	30	50	-	250	60	260	-
HTS CO (%)	4.5	0.5	3.4	-	0.0	0.1	0.0	-	4.9	0.2	5.2	-
HTS NOX (ppm)	110	240	100	-	80	180	80	-	120	260	120	-
HTS RPM	800	-	860	-	830	-	860	-	760	-	760	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	65	29.70		52	76	29.89		60	50	30.35	
HTS	75	40	29.64		63	64	29.84		72	42	30.30	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	640	(700)	790	750
DWELL	N/A		N/A	N/A
TIMING	+11	(+10)	+11	+10
MECH ADVANCE	18	(18)	18	18
TOTAL ADVANCE	43	(43)	43	41
PROPANE IDLE CK	20		0	0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	OK	OK	OK
BRAKES	OK	OK	OK
OVERALL PERF	OK	STRETCHY	STUMBLES, BACKFIRES
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Cyl. Power Dist.	Idle Speed	Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Spark Plugs
	Adjusted Idle Speed	Replaced Engine Oil
		Replaced Oil Filter
		Adjusted Carburetor
		Adjusted Timing
PERFORMED BY:	Service Station	Auto Dealer
COST:	$10.00	$54.00
OWNER'S DRIVEABILITY EVAL:	Eng. Misfiring	No Major Problems
OWNER SATISFIED WITH VEH:	Most of the Time	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.34	141.57	1462.6	05.84	05.19	
DATE: 2-23-79	CS (grams)	007.76	101.84	1731.7	03.96	03.49	
	HT (grams)	005.97	062.53	1334.2	05.58	04.93	
ODOM: 43505	COMP (GPM)	002.25	026.45	0416.2	01.29	01.14	19.1
	HFET (GPM)	000.28	003.75	0284.0	01.88		30.49
MAINT RETEST	FTP CT (grams)	012.51	130.30	1519.1	06.29	05.40	
DATE: 3-19-79	CS (grams)	002.97	028.98	1857.6	05.29	04.54	
	HT (grams)	004.12	065.76	1374.7	05.95	05.16	
ODOM: 43962	COMP (GPM)	001.43	016.33	0439.3	01.52	01.31	18.9
	HFET (GPM)	000.18	002.97	0291.7	02.31		29.87
RETEST	FTP CT (grams)	011.25	114.83	1388.8	05.83	05.22	
DATE: 6-08-79	CS (grams)	006.51	075.65	1726.9	05.18	04.69	
	HT (grams)	006.02	059.58	1329.4	05.84	05.29	
ODOM: 44999	COMP (GPM)	001.97	021.20	0410.9	01.47	01.33	19.7
	HFET (GPM)	000.20	003.01	0281.4	01.71		30.93

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0572.9	00.0	0764.4	0050	00.0
LOW	0511.7	00.0	0850.4	0050	00.0
IDLE	3440.2	03.2	0062.5	0180	03.2
HI	0733.7	00.0	1027.0	0060	00.0
LOW	0369.6	00.0	0985.7	0050	00.0
IDLE	0342.1	00.0	0112.2	0040	00.0
HI	0355.7	00.0	0628.3	0040	00.0
LOW	0634.0	00.0	Q785.9	0070	00.0
IDLE	3840.3	05.3	0062.5	0210	05.0

EPA NO. 52018

APPENDIX B

EPA NO.: 52019 MAKE/MODEL: PLYMOUTH/DUSTER ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	240	165	265	F	185	130	225	P	170		265	P
DEQ CO (%)	4.9	2.4	5.3	F	0.0	0.4	0.0	P	6.9		7.8	F
DEQ RPM	850	-	850	P	800	-	800	P	Readings not Available			
DEQ QUEUE TIME	4 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	320	80	300	-	290	50	210	-	250	80	290	-
HTS CO (%)	5.6	0.1	6.0	-	0.0	0.0	0.0	-	7.8	0.8	7.7	-
HTS NOX (ppm)	140	480	140	-	80	320	80	-	150	350	190	-
HTS RPM	810	-	830	-	640	-	630	-	900	-	900	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	43	69	29.90		62	66	30.30		64	45	30.35	
HTS	66	48	29.84		76	55	30.28		78	38	30.29	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	710	(755)	650	800
DWELL	N/A		N/A	N/A
TIMING	+02	(000)	00	00
MECH ADVANCE	22	(21)	22	18
TOTAL ADVANCE	23	(38)	23	19
PROPANE IDLE CK	0		180	0

DRIVEABILITY			
ENG STARTING	HARD	HARD	HARD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	SURGES,BACKFIRES	ENG. MISS	STUMBLE,BACKFIRE,STRETCHY

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Total Adv. @ 2500 Cyl. Power Dist. Vacuum Hoses Disconn.	Idle Speed Total Adv. @ 2500 EGR Switch Air Filters- Cond. Vacuum Hoses - Cond.	Total Adv. @ 2500 Vacuum Hoses- Cond.,Disc Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Engine Oil Replaced Oil Filter
PERFORMED BY:	Independent Repair Garage	Owner
COST:	$7.00	$6.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

EPA NO.: 52019 MAKE/MODEL : PLYMOUTH/DUSTER ENG: 225-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	280	430	365	F	160	205	235	F
DEQ CO (%)	2.2	0.6	2.7	F	8.3	1.8	8.5	F
DEQ RPM	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	1 Minutes				50 Minutes			
HTS HC (ppm)	300	200	330	-	230	200	320	-
HTS CO (%)	1.1	0.4	1.2	-	8.4	0.4	8.6	-
HTS NOX (ppm)	120	620	130	-	130	680	140	-
HTS RPM	800	-	810	-	810	-	860	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	66	54	30.15		70	44	30.20	
HTS	81	43	30.08		74	54	30.13	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	780	(755)	700
DWELL	N/A		N/A
TIMING	000	(000)	-01
MECH ADVANCE	18	(21)	19
TOTAL ADVANCE	36	(38)	36
PROPANE IDLE CK	50		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	SURGES	STUMBLES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Cyl. Power Dist.

Spk Plg Frng Volt.
Vac. Hoses Plugged

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor & Choke	None
	Adjusted Idle Speed	
	Loose Manifold	
	Replaced Air Filter	
PERFORMED BY:	HTS	
COST:	$8.00	
MANHOURS:	5 Hours	
OWNER'S DRIVEABILITY EVAL:	N/A	Stalling
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.75	136.86	1868.2	15.03	12.69	
DATE: 2-26-79	CS (grams)	012.74	270.08	1770.8	08.80	07.43	
ODOM: 63597	HT (grams)	006.14	106.58	1564.2	15.18	12.81	
	COMP (GPM)	002.72	051.96	0462.1	03.19	02.69	16.1
	HFET (GPM)	000.37	004.42	0370.9	04.00		23.40
MAINT RETEST	FTP CT (grams)	006.54	064.82	1910.2	14.95	13.02	
DATE: 3-07-79	CS (grams)	000.92	007.46	1929.1	09.80	08.53	
ODOM: 63897	HT (grams)	001.79	020.82	1542.0	12.90	11.23	
	COMP (GPM)	000.63	006.29	0483.9	03.14	02.74	17.9
	HFET (GPM)	000.18	002.36	0361.9	03.99		24.22
RETEST	FTP CT (grams)	009.57	159.67	1779.8	12.30	10.95	
DATE: 5-19-79	CS (grams)	012.37	414.57	1707.5	06.64	05.91	
ODOM: 66890	HT (grams)	007.23	130.04	1523.3	11.80	10.51	
	COMP (GPM)	002.75	078.11	0445.5	02.49	02.22	15.4
	HFET (GPM)	000.57	010.17	0356.9	03.14		23.67
HTS MAINT RETEST	FTP CT (grams)	011.24	088.81	1553.2	13.43	12.38	
DATE: 5-24-79	CS (grams)	006.65	101.96	1668.8	06.78	06.25	
ODOM: 66946	HT (grams)	004.94	065.15	1374.3	15.49	14.18	
	COMP (GPM)	001.91	023.64	0416.0	02.85	02.62	19.3
	HFET (GPM)	000.25	003.16	0324.6	05.04		26.85
RETEST	FTP CT (grams)	012.89	129.69	1745.0	18.09	16.52	
DATE: 6-26-79	CS (grams)	008.55	208.96	1731.3	13.01	11.88	
ODOM: 68147	HT (grams)	007.61	126.81	1495.3	20.87	19.29	
	COMP (GPM)	002.46	044.93	0444.5	04.36	04.00	17.0
	HFET (GPM)	000.64	008.38	0350.5	06.09		24.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0186.0	00.0	1483.1	0020	00.0
LOW	0305.3	00.0	0798.9	0060	00.1
IDLE	5097.4	05.8	0070.9	0410	06.0
HI	0080.4	00.0	1339.8	0000	00.0
LOW	0129.3	00.0	0731.0	0000	00.0
IDLE	0670.8	00.2	0103.1	0040	00.2
HI	0135.4	00.0	1156.0	0000	00.0
LOW	1129.6	01.2	0516.1	0080	00.8
IDLE	5210.8	08.0	0057.7	0260	07.5
HI	0534.8	00.0	2436.8	0045	00.0
LOW	0528.7	00.0	0869.2	0050	00.1
IDLE	3016.7	02.8	0114.6	0220	02.8
HI	0222.2	00.0	2396.8	0030	00.0
LOW	0534.2	00.0	1136.1	0050	00.0
IDLE	3373.6	05.2	0071.1	0200	05.2

EPA NO. 52019

APPENDIX B

EPA NO.: 52020 MAKE/MODEL: OLDS/CUTLASS ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	455	180	405	F	290	105	290	F	370	190	260	F
DEQ CO (%)	2.8	0.1	3.2	F	1.6	0.5	1.4	F	2.7	0.0	2.5	F
DEQ RPM	800	-	800	P	800	-	800	P	600	-	600	P
DEQ QUEUE TIME	30 Minutes				5 Minutes				10 Minutes			
HTS HC (ppm)	1820	450	1650	-	380	80	360	-	420	100	390	-
HTS CO (%)	6.8	0.0	6.9	-	0.0	0.0	0.0	-	1.5	0.0	2.0	-
HTS NOX (ppm)	140	180	140	-	90	140	100	-	80	130	85	-
HTS RPM	540	-	540	-	610	-	640	-	600	-	640	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	82	30.00		51	47	30.40		63	54	30.25	
HTS	62	64	29.97		72	38	30.44		70	48	30.18	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	440	(555)	570	590
DWELL	N/A		N/A	N/A
TIMING	+21	(+20)	+06	+05
MECH ADVANCE	28	(29)	10	12
TOTAL ADVANCE	53	(53)	40	34
PROPANE IDLE CK	0		60	0
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		SURGES, STUMBLES BACKFIRES, STRETCHY	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Spk Plg Frng Volt. Cyl. Power Dist.		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Replaced Spark Plugs	Adjusted Timing
PERFORMED BY:	Independent Repair Garage	Service Station
COST:	$40.00	None
OWNER'S DRIVEABILITY EVAL:	Engine Misfiring, Poor Acceleration	Hard Starting, Stalling, Poor Acceleration
OWNER SATISFIED WITH VEH.:	No	No

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.59	156.56	2172.6	10.90	09.30	
DATE: 2-27-79	CS (grams)	024.44	188.89	2080.8	09.13	07.84	
ODOM: 61447	HT (grams)	015.63	095.78	1849.7	11.16	09.52	
	COMP (GPM)	005.46	041.44	0542.6	02.69	02.30	14.2
	HFET (GPM)	000.55	003.87	0431.5	02.72		20.18
MAINT RETEST	FTP CT (grams)	025.44	285.26	2859.8	07.08	06.15	
DATE: 4-3-79	CS (grams)	006.54	069.27	2814.0	04.77	04.11	
ODOM: 61922	HT (grams)	006.74	166.75	2458.8	05.16	04.51	
	COMP (GPM)	002.84	038.26	0726.0	01.43	01.24	11.2
	HFET (GPM)	000.63	024.16	0562.4	01.31		14.72
RETEST	FTP CT (grams)	021.11	214.63	2750.1	06.23	05.69	
DATE: 6-20-79	CS (grams)	007.12	084.82	2657.9	04.92	04.50	
ODOM: 64063	HT (grams)	006.57	095.28	2374.8	05.83	05.33	
	COMP (GPM)	002.66	030.86	0692.6	01.46	01.33	11.8
	HFET (GPM)	000.49	012.06	0542.2	01.53		15.76

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0412.4	00.0	0813.4	0040	00.0
LOW	0822.5	00.0	1065.8	0100	00.0
IDLE	9989.2	07.4	0051.5	0780	07.7
HI	0309.8	00.0	0349.0	0040	00.1
LOW	0294.5	00.0	0253.5	0040	00.0
IDLE	2698.9	02.2	0076.8	0190	01.9
HI	0325.1	00.0	0377.7	0020	00.0
LOW	0297.6	00.0	0289.3	0040	00.0
IDLE	2980.1	02.2	0079.2	0210	02.1

EPA NO. 52020

APPENDIX B

EPA NO.: 52021 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	850	210	770	F								
DEQ CO (%)	4.7	6.1	4.2	F								
DEQ RPM	750	-	750	P	No Retest - Vehicle							
DEQ QUEUE TIME	10 Minutes				Dropped from Program							
HTS HC (ppm)	880	90	1240	-								
HTS CO (%)	3.2	0.0	4.1	-								
HTS NOX (ppm)	100	320	120	-								
HTS RPM	790	-	690	-								

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	50	53	29.85						
HTS	62	45	29.80						

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	560	(655)
DWELL	N/A	
TIMING	+13	(+16)
MECH ADVANCE	20	(25)
TOTAL ADVANCE	46	(50)
PROPANE IDLE CK	0	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	STUMBLES

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Cyl. Power Dist.
EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	028.53	271.48	1881.3	15.96	13.21	
DATE: 3-01-79	CS (grams)	022.04	235.09	2106.7	12.31	10.19	
ODOM: 81026	HT (grams)	013.84	102.74	1747.8	19.81	16.51	
	COMP (GPM)	005.63	054.72	0521.6	04.06	03.37	14.2
	HFET (GPM)	000.59	002.23	0398.4	05.73		21.96
MAINT RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0409.4	00.0	1975.7	0060	00.0
LOW	0531.8	00.0	0551.4	0060	00.0
IDLE	2612.6	01.8	0027.2	0200	01.7
HI					
LOW					
IDLE					
HI					
LOW					
IDLE					

EPA NO. 52021

APPENDIX B

EPA NO.: 61000 MAKE/MODEL: CHEV/MALIBU ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	130	40	100	P	90	105	115	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.6	0.0	P
DEQ RPM	800	-	800	P	1000	-	1000	P
DEQ QUEUE TIME	20 Minutes				10 Minutes			
HTS HC (ppm)	140	40	150	-	140	50	120	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.5	0.0	-
HTS NOX (ppm)	75	250	80	-	100	260	120	-
HTS RPM	750	-	780	-	930	-	1000	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	81	30.02	59	58	30.10
HTS	68	54	29.95	67	55	30.05

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(600)	620
DWELL	N/A		N/A
TIMING	-04	(+08)	+10
MECH ADVANCE	08	(22)	21
TOTAL ADVANCE	27	(40)	43
PROPANE IDLE CK	300		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

None

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter
Adjusted Timing

PERFORMED BY: Owner
COST: $5.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.83	141.21	2115.2	13.28	11.50	
	CS (grams)	002.80	053.87	2250.4	07.14	06.19	
DATE: 2-07-79	HT (grams)	002.20	034.16	1851.6	12.17	10.54	
ODOM: 81604	COMP (GPM)	001.16	017.87	0562.0	02.64	02.29	14.9
	HFET (GPM)	000.26	008.97	0462.3	04.07		18.58
RETEST	FTP CT (grams)	008.83	114.74	1966.3	20.27	18.13	
	CS (grams)	006.25	089.19	2085.5	11.18	10.00	
DATE: 5-02-79	HT (grams)	004.59	059.72	1768.1	18.87	16.87	
ODOM: 85960	COMP (GPM)	001.69	023.01	0525.2	04.09	03.65	15.6
	HFET (GPM)	000.37	006.83	0406.7	04.84		21.18

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0221.1	00.0	1050.9	0020	00.0
LOW	0147.7	00.0	0499.4	0020	00.0
IDLE	0111.0	00.0	0184.3	0020	00.0
HI	0652.4	00.1	1609.6	0040	00.2
LOW	1674.1	01.1	1198.9	0120	01.0
IDLE	0496.4	00.0	0131.8	0060	00.0

EPA NO. 61000

APPENDIX B

EPA NO.: 61001 MAKE/MODEL: FORD/PINTO ENG:140-1V TRANS:AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	55	45	P	30	30	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.1	0.0	P
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				0 Minutes			
HTS HC (ppm)	70	50	50	-	80	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	260	60	-	40	120	60	-
HTS RPM	850	-	890	-	810	-	880	-

	°F	RH	BARO	°F	RH	BARO
DEQ	44	77	29.70	56	56	30.25
HTS	72	31	29.96	68	42	30.18

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	690	(755)	660	
DWELL	N/A		N/A	
TIMING	+18	(+20)	+18	
MECH ADVANCE	22	(23)	20	
TOTAL ADVANCE	45	(47)	41	
PROPANE IDLE CK	90		0	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Fast Idle Speed
Spark Plug Firing Volt.

Idle Speed
Total Adv. @ 2500

MAINTENANCE MAINT PRIOR TO RETEST

Replaced Spark Plugs
Replaced Air Filter
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $25.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.86	081.74	1624.9	09.65	08.36	
	CS (grams)	001.95	005.38	1711.5	06.07	05.29	
DATE:2-15-79	HT (grams)	001.82	005.29	1392.7	09.76	08.42	
ODOM:39892	COMP (GPM)	000.68	005.80	0427.2	02.10	01.82	20.2
	HFET (GPM)	000.26	000.38	0296.0	02.67		29.81
RETEST	FTP CT (grams)	004.89	072.08	1492.3	13.94	11.87	
	CS (grams)	002.24	003.47	1596.5	10.91	09.28	
DATE:5-10-79	HT (grams)	002.19	005.32	1376.2	18.33	15.86	
ODOM:43167	COMP (GPM)	000.75	005.00	0403.0	03.65	03.12	21.5
	HFET (GPM)	000.37	000.64	0284.9	04.88		30.89

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0505.6	00.0	1084.3	0040	00.0
LOW	0548.4	00.0	0446.9	0060	00.0
IDLE	0334.3	00.0	0064.9	0040	00.0
HI	0462.7	00.0	2134.8	0040	00.1
LOW	0707.5	00.0	0924.4	0080	00.1
IDLE	0361.8	00.0	0093.6	0040	00.1

EPA NO.£1001

EPA NO.: 61002 MAKE/MODEL: CHEV/NOVA ENG: 305-2 TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	220	80	215	P	70	45	60	P
DEQ CO (%)	1.0	0.0	0.5	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	120	40	80	-	100	20	50	-
HTS CO (%)	0.1	0.0	0.1	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	230	60	-	70	270	90	-
HTS RPM	780	-	800	-	670	-	840	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	42	71	29.75	63	44	30.26
HTS	75	40	29.70	80	38	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(600)	500
DWELL	N/A		N/A
TIMING	+08	(+08)	+07
MECH ADVANCE	24	(22)	20
TOTAL ADVANCE	41	(40)	46
PROPANE IDLE CK	60		140

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt.

Idle Speed
Total Adv. @ 2500
Vacuum Hoses - Condition

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $4.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	025.93	322.27	1897.1	12.21	10.59		HI	0400.2	00.0	1434.6	0050	00.1
DATE: 2-22-79	CS (grams)	009.40	077.69	2118.9	06.43	05.58		LOW	0287.0	00.0	0730.9	0050	00.0
	HT (grams)	006.37	048.68	1767.6	10.82	09.38		IDLE	0963.2	01.4	0061.2	0200	01.4
ODOM: 39392	COMP (GPM)	003.22	032.53	0525.6	02.38	02.06	15.1						
	HFET (GPM)	000.32	003.68	0420.7	03.15		20.75						
RETEST	FTP CT (grams)	014.06	189.43	1914.7	13.45	12.62		HI	0397.1	00.0	1320.6	0050	00.0
DATE: 5-22-79	CS (grams)	001.72	007.69	2202.3	07.92	07.43		LOW	0235.0	00.0	0694.5	0020	00.0
	HT (grams)	003.14	021.51	1808.0	12.25	11.34		IDLE	0152.3	00.0	0252.9	0020	00.0
ODOM: 41685	COMP (GPM)	001.27	013.52	0540.8	02.76	02.58	15.7						
	HFET (GPM)	000.13	000.71	0411.3	03.91		21.48						

EPA NO. 61002

APPENDIX B

EPA NO.: 61003 MAKE/MODEL: CHEV/MONTE CARLO ENG:305-2V TRANS:AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	75	35	75	P	35	25	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1050	-	1050	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				0 Minutes			
HTS HC (ppm)	190	50	160	-	90	30	110	-
HTS CO (%)	0.0	0.1	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	260	90	-	100	400	90	-
HTS RPM	780	-	910	-	950	-	910	-

	°F	RH	BARO	°F	RH	BARO
DEQ	45	63	29.70	67	35	30.24
HTS	75	40	29.64	84	32	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	600
DWELL	N/A		N/A
TIMING	+09	(+08)	+07
MECH ADVANCE	23	(22)	20
TOTAL ADVANCE	41	(40)	36
PROPANE IDLE CK	120		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR

Vacuum Hoses - Condition
EGR

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Air Filter
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Service Station
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.17	205.30	2133.9	21.77	19.05	
DATE: 2-23-79	CS (grams)	004.90	031.87	2869.3	24.24	21.21	
ODOM: 69248	HT (grams)	005.45	082.68	2036.7	23.20	20.65	
	COMP (GPM)	001.99	022.30	0659.7	06.24	05.49	12.6
	HFET (GPM)	001.11	017.55	0435.8	06.18		18.99
RETEST	FTP CT (grams)	010.80	132.63	2024.0	20.94	18.38	
DATE: 5-18-79	CS (grams)	002.33	016.44	2610.2	20.71	18.18	
ODOM: 73643	HT (grams)	004.34	072.31	1946.6	21.57	18.80	
	COMP (GPM)	001.26	015.29	0612.0	05.60	04.91	13.9
	HFET (GPM)	000.54	009.87	0408.3	05.63		20.84

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2417.4	01.1	2397.4	0140	01.3
LOW	0572.9	00.0	1616.7	0060	00.0
IDLE	0432.1	00.0	0972.1	0050	00.0
HI	1890.4	01.4	2252.3	0130	01.6
LOW	0421.6	00.0	1587.5	0050	00.0
IDLE	0280.9	00.0	0592.6	0040	00.0

APPENDIX B

EPA NO.: 61004 MAKE/MODEL: CHEV/NOVA ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	20	35	P	95	85	100	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				15 Minutes			
HTS HC (ppm)	250	80	160	-	130	60	120	-
HTS CO (%)	0.0	0.1	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	320	80	-	60	260	70	-
HTS RPM	790	-	810	-	810	-	800	-

	°F	RH	BARO	°F	RH	BARO
DEQ	50	53	29.85	67	40	30.10
HTS	57	61	29.82	80	35	30.04

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(600)	540
DWELL	N/A		N/A
TIMING	+07	(+08)	+07
MECH ADVANCE	20	(22)	21
TOTAL ADVANCE	35	(40)	38
PROPANE IDLE CK	70		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	SURGES, STRETCHY	OK
IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	None	None

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.74	051.41	2051.0	19.94	17.09	
DATE:3-01-79	CS (grams)	001.06	007.63	2165.1	09.59	08.17	
ODOM:26767	HT (grams)	001.62	010.63	1873.3	16.15	13.84	
	COMP (GPM)	000.71	004.77	0548.6	03.65	03.12	15.9
	HFET (GPM)	000.10	000.24	0434.2	05.57		20.39
RETEST	FTP CT (grams)	008.55	038.55	2111.5	17.42	14.84	
DATE:6-13-79	CS (grams)	000.87	001.18	2181.9	08.30	07.14	
ODOM:29098	HT (grams)	001.75	007.56	1812.9	15.06	12.87	
	COMP (GPM)	000.74	002.94	0549.8	03.25	02.78	15.9
	HFET (GPM)	000.10	000.17	0430.7	04.80		20.56

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0215.0	00.0	1760.0	0020	00.0
LOW	0129.3	00.0	0630.7	0020	00.0
IDLE	0080.4	00.0	0222.5	0000	00.0
HI	0134.0	00.0	1517.1	0030	00.0
LOW	0115.6	00.0	0534.4	0020	00.0
IDLE	0069.7	00.0	0228.6	0020	00.0

EPA NO.61004

APPENDIX B

EPA NO.: 61005 MAKE/MODEL: PLYMOUTH/VALIANT ENG: 225-1V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	145	70	155	P	150	105	700	P
DEQ CO (%)	0.9	0.0	1.0	P	1.3	0.8	1.8	F
DEQ RPM	1010	-	1050	P	1050	-	1050	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	290	160	260	-	120	100	160	-
HTS CO (%)	1.0	0.5	1.3	-	0.1	0.9	1.0	-
HTS NOX (ppm)	180	340	190	-	160	320	170	-
HTS RPM	920	-	930	-	960	-	1040	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	53	29.80	73	23	30.20
HTS	67	42	29.84	80	41	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	680	(755)	790
DWELL	N/A		N/A
TIMING	+03	(+02)	+03
MECH ADVANCE	20	(19)	15
TOTAL ADVANCE	32	(36)	34
PROPANE IDLE CK	40		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	SURGES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.66	140.13	1804.6	13.68	11.39	
DATE:3-02-79	CS (grams)	008.02	042.70	1836.0	11.51	09.65	
ODOM:18618	HT (grams)	008.68	049.57	1631.6	11.12	09.26	
	COMP (GPM)	002.28	017.49	0472.3	03.16	02.64	17.5
	HFET (GPM)	000.68	007.65	0365.3	02.32		23.37
RETEST	FTP CT (grams)	015.97	315.01	1616.0	08.69	08.24	
DATE:5-31-79	CS (grams)	006.55	034.42	1865.4	09.86	09.35	
ODOM:19694	HT (grams)	005.06	038.52	1643.1	10.21	09.49	
	COMP (GPM)	002.17	025.58	0466.2	02.59	02.44	17.3
	HFET (GPM)	000.48	004.17	0359.3	02.41		24.14

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1100.9	00.2	0864.4	0100	00.4
LOW	0877.6	00.0	0786.7	0100	00.2
IDLE	3466.9	00.9	0143.7	0180	00.9
HI	1437.5	00.5	1058.5	0120	00.7
LOW	1085.6	00.2	0624.2	0090	00.2
IDLE	2432.0	00.2	0451.9	0200	00.3

EPA NO.61005

APPENDIX B

EPA NO.: 61006 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	80	115	95	P	120	65	120	P
DEQ CO (%)	0.1	0.0	0.0	P	0.2	0.0	0.1	P
DEQ RPM	900	-	900	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	320	60	150	-	180	120	80	-
HTS CO (%)	0.2	0.0	0.0	-	0.5	0.0	0.0	-
HTS NOX (ppm)	110	220	100	-	120	190	110	-
HTS RPM	850	-	870	-	820	-	840	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	46	59	29.90	64	34	30.35
HTS	72	42	29.87	75	34	30.31

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(755)	770
DWELL	N/A		N/A
TIMING	+02	(+02)	+01
MECH ADVANCE	16	(18)	15
TOTAL ADVANCE	39	(40)	37
PROPANE IDLE CK	130		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Fuel Filter
Adjusted Spark Plugs, Carburetor
Adjusted Idle Speed, Timing

PERFORMED BY: Auto Dealer
COST: $21.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	008.73	127.71	2254.9	09.62	08.01		HI	0482.8	00.0	1022.1	0060	00.0
DATE: 5-02-79	CS (grams)	002.25	003.45	2330.3	09.66	08.04		LOW	0421.6	00.0	0716.4	0060	00.0
	HT (grams)	003.64	007.69	1987.0	11.72	09.76		IDLE	0369.6	00.0	0279.6	0060	00.0
ODOM: 20782	COMP (GPM)	001.08	008.37	0591.0	02.73	02.27	14.6						
	HFET (GPM)	000.31	000.32	0461.3	02.98		19.16						
RETEST	FTP CT (grams)	008.98	143.76	2022.1	06.21	07.31		HI	0394.1	00.0	0864.4	0040	00.0
DATE: 5-30-79	CS (grams)	006.06	034.72	2219.8	08.53	07.54		LOW	0727.6	00.0	0527.1	0090	00.0
	HT (grams)	004.25	011.27	1966.6	10.91	09.75		IDLE	2477.9	00.7	0197.1	0180	00.8
ODOM: 21674	COMP (GPM)	001.65	013.73	0561.4	02.44	02.16	15.1						
	HFET (GPM)	000.34	000.39	0437.3	02.60		20.20						

EPA NO. 61006

APPENDIX B

EPA NO.: 62000 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	450	345	440	F	50	70	70	P	70	80	75	P
DEQ CO (%)	2.9	1.0	3.0	F	0.1	0.0	0.1	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	950	-	950	P	1050	-	1075	P
DEQ QUEUE TIME	15 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	630	380	470	-	90	80	120	-	140	60	110	-
HTS CO (%)	2.2	0.3	1.6	-	0.0	0.0	0.1	-	0.0	0.1	0.0	-
HTS NOX (ppm)	110	220	120	-	120	170	130	-	100	160	110	-
HTS RPM	800	-	830	-	950	-	970	-	980	-	970	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	38	65	29.75		47	78	29.90		54	56	30.00	
HTS	71	41	30.24		62	64	29.82		75	34	29.92	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	760	(750)	840		780
DWELL	N/A		N/A		N/A
TIMING	+03	(+02)	+02		+05
MECH ADVANCE	18	(18)	21		21
TOTAL ADVANCE	43	(40)	40		29
PROPANE IDLE CK	50		200		200
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	None		Idle Speed Mech. Adv. @ 2500		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Adjusted Spark Timing Control Adjusted Carburetor Adjusted Timing & Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$62.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.49	191.77	2130.4	14.18	11.30	
DATE: 1-29-79	CS (grams)	014.32	139.76	2038.7	10.58	08.43	
	HT (grams)	010.16	055.41	1911.9	15.10	12.20	
ODOM: 29069	COMP (GPM)	003.68	033.84	0539.3	03.37	02.70	14.7
	HFET (GPM)	000.96	006.40	0462.7	03.33		18.64
MAINT RETEST	FTP CT (grams)	014.20	273.87	2424.6	14.78	13.46	
DATE: 2-12-79	CS (grams)	005.55	055.12	2559.2	09.57	08.71	
	HT (grams)	004.36	038.23	2220.5	14.81	13.49	
ODOM: 29284	COMP (GPM)	001.89	025.96	0649.0	03.25	02.96	12.7
	HFET (GPM)	001.07	017.38	0508.9	03.75		16.44
RETEST	FTP CT (grams)	007.05	050.29	2447.2	11.66	09.94	
DATE: 5-09-79	CS (grams)	002.77	019.94	2739.5	04.25	03.60	
	HT (grams)	003.53	017.83	2217.8	09.73	08.24	
ODOM: 30892	COMP (GPM)	001.04	006.90	0674.1	01.98	01.68	12.9
	HFET (GPM)	000.60	004.07	0493.5	02.88		17.67

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0661.6	00.2	0912.4	0060	00.2
LOW	0560.6	00.0	2082.3	0060	00.1
IDLE	3810.3	02.8	0172.3	0180	02.6
HI	1403.9	00.8	1233.2	0100	01.0
LOW	0544.0	00.1	0747.9	0060	00.1
IDLE	0791.9	00.4	0083.0	0100	00.5
HI	1266.2	00.4	0876.5	0080	00.3
LOW	0476.7	00.1	0187.4	0040	00.0
IDLE	0381.8	00.1	0160.7	0040	00.0

EPA NO. 62000

APPENDIX B

EPA NO.: 62001 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	25	45	P	50	20	100	P	45	25	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1150	-	1200	F	900	-	900	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				45 Minutes				5 Minutes			
HTS HC (ppm)	170	70	130	-	80	20	100	-	130	30	160	-
HTS CO (%)	0.1	0.4	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	140	50	-	60	210	80	-	50	140	50	-
HTS RPM	980	-	1040	-	780	-	790	-	810	-	750	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	76	30.00		43	63	29.70		68	49	29.95	
HTS	64	65	30.00		68	38	29.62		78	43	29.92	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	880	(855)	720	690	
DWELL	N/A		N/A	N/A	
TIMING	+06	(+06)	+06	+11	
MECH ADVANCE	19	(20)	21	21	
TOTAL ADVANCE	48	(44)	45	42	
PROPANE IDLE CK	270		110	0	

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	OK	OK	OK
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	None	Idle Speed Spk Plg Frng Volt.	Idle Speed Ign. Timing @ Idle Spk Plg Frng Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Owner	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.13	020.64	1435.9	13.98	12.43	
DATE: 2-09-79	CS (grams)	001.73	001.97	1549.0	11.00	09.67	
ODOM: 25319	HT (grams)	002.43	005.97	1180.5	15.74	13.93	
	COMP (GPM)	000.65	001.90	0378.6	03.46	03.06	23.1
	HFET (GPM)	000.27	000.25	0249.1	04.65		35.42
MAINT RETEST	FTP CT (grams)	006.73	030.50	1558.8	17.62	15.54	
DATE: 2-21-79	CS (grams)	001.90	005.25	1721.1	14.92	13.15	
ODOM: 25519	HT (grams)	002.34	008.90	1250.6	16.58	14.62	
	COMP (GPM)	000.82	003.13	0413.9	04.26	03.76	21.0
	HFET (GPM)	000.24	000.40	0257.8	04.48		34.21
RETEST	FTP CT (grams)	003.63	018.71	1457.6	14.70	13.95	
DATE: 5-04-79	CS (grams)	001.83	003.50	1501.4	10.25	09.72	
ODOM: 27220	HT (grams)	002.57	006.31	1195.4	14.92	14.16	
	COMP (GPM)	000.65	002.02	0374.6	03.34	03.17	23.3
	HFET (GPM)	000.21	000.28	0256.6	04.24		34.41

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0516.5	00.0	1750.1	0060	00.0
LOW	0381.8	00.0	0946.9	0040	00.0
IDLE	0170.7	00.0	0211.7	0040	00.0
HI	0346.5	00.0	1860.3	0020	00.0
LOW	0322.0	00.0	0800.2	0000	00.0
IDLE	0202.7	00.0	0050.6	0000	00.0
HI	0508.6	00.0	1805.4	0050	00.0
LOW	0309.8	00.0	0793.1	0030	00.0
IDLE	0309.8	00.0	0074.5	0040	00.0

EPA NO. 62001

APPENDIX B

EPA NO.: 62002 MAKE/MODEL: FORD/PINTO WGN ENG: 140-2V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	280	220	385	F	190	115	360	P	200	220	260	F
DEQ CO (%)	4.5	1.0	3.7	F	1.2	0.4	0.5	P	1.9	1.5	1.4	F
DEQ RPM	1000	-	1000	P	950	-	950	P	1000	-	1000	P
DEQ QUEUE TIME	25 Minutes				5 Minutes				3 Minutes			
HTS HC (ppm)	310	160	310	-	410	100	350	-	270	90	340	-
HTS CO (%)	3.1	1.9	2.4	-	0.0	1.0	0.0	-	0.0	1.4	0.0	-
HTS NOX (ppm)	110	300	100	-	80	350	80	-	10	50	10	-
HTS RPM	900	-	900	-	810	-	850	-	830	-	850	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	47	78	29.95		54	56	30.05		66	43	30.20	
HTS	60	73	29.84		63	46	29.96		70	40	30.16	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	920	(850)	740	830	
DWELL	N/A		N/A	N/A	
TIMING	+11	(+06)	+07	+07	
MECH ADVANCE	21	(20)	28	21	
TOTAL ADVANCE	43	(44)	45	42	
PROPANE IDLE CK	10		150	150	
DRIVEABILITY					
ENG STARTING	GOOD		HARD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		SURGES, STUMBLES BACKFIRES	OK	
IDLE LIMITER CAPS:	OK		OK	OK	
PROBLEM AREAS:	Ign. Timing @ Idle EGR		Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Spk Plg Frng Volt. EGR	Spk Plg Frng Volt. EGR	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Oil Filter
PERFORMED BY:	Independent Repair Garage	Owner
COST:	None	$3.00
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Most of the Time	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.82	112.67	1429.1	08.14	07.32	
DATE: 2-12-79	CS (grams)	010.91	168.95	1471.2	04.40	03.96	
	HT (grams)	006.10	065.40	1245.3	07.65	06.89	
ODOM: 53143	COMP (GPM)	002.48	033.96	0372.7	01.63	01.47	20.4
	HFET (GPM)	000.31	002.90	0293.0	01.86		29.71
MAINT RETEST	FTP CT (grams)	009.45	113.47	1288.5	18.89	15.89	
DATE: 3-20-79	CS (grams)	010.16	118.52	1364.6	11.20	09.42	
	HT (grams)	006.11	056.33	1159.0	17.81	14.98	
ODOM: 54941	COMP (GPM)	002.36	026.59	0343.9	03.93	03.31	22.6
	HFET (GPM)	000.42	003.04	0263.4	05.74		32.91
RETEST	FTP CT (grams)	008.18	095.05	1237.0	20.68	18.86	
DATE: 6-06-79	CS (grams)	009.04	120.88	1304.7	12.00	10.75	
	HT (grams)	006.27	063.01	1139.1	20.69	18.65	
ODOM: 60991	COMP (GPM)	002.15	026.36	0331.4	04.36	03.93	23.4
	HFET (GPM)	000.39	003.18	0259.0	06.31		33.43

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0403.3	00.0	0997.8	0090	00.3
LOW	1976.1	01.2	0413.1	0160	01.2
IDLE	7308.2	06.5	0056.4	0320	07.0
HI	0902.0	00.0	2436.8	0080	00.0
LOW	2695.2	01.5	1475.9	0200	01.2
IDLE	4987.4	01.9	0148.6	0360	01.6
HI	0530.0	00.0	2397.4	0060	00.0
LOW	1992.2	01.3	1733.7	0150	01.2
IDLE	3010.1	01.3	0100.7	0180	01.3

EPA NO. 62002

APPENDIX B

EPA NO.: 62003 MAKE/MODEL: PLYMOUTH/VALIANT ENG: 225-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	290	180	310	F	80	65	100	P	110	50	105	P
DEQ CO (%)	3.2	1.0	2.3	F	1.0	1.2	0.9	P	0.7	0.2	0.1	P
DEQ RPM	850	-	850	P	No RPM Readings Given				600	-	600	P
DEQ QUEUE TIME	35 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	270	160	230	-	70	50	50	-	80	60	50	-
HTS CO (%)	1.9	1.2	1.5	-	0.2	0.4	0.1	-	0.4	0.6	0.0	-
HTS NOX (ppm)	140	360	160	-	150	580	160	-	140	960	160	-
HTS RPM	800	-	800	-	700	-	710	-	960	-	1000	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	47	63	30.00		58	23	30.05		69	46	30.15	
HTS	60	53	29.90		70	33	30.03		82	39	30.09	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	730	(755)	690		820
DWELL	N/A		N/A		N/A
TIMING	+02	(+02)	+01		+03
MECH ADVANCE	21	(19)	17		18
TOTAL ADVANCE	32	(36)	17		33
PROPANE IDLE CK	20		120		110
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLES		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Fast Idle Speed Mech. Adv. @ 2500 Air Filter - Cond.		Fast Idle Speed Total Adv. @ 2500 EGR Vacuum Hoses Plugged		EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs & Air Filter Replaced Distributor Cap & Rotor Replaced Manifold Gasket Adjusted Carburetor & Choke Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$72.00	
OWNER'S DRIVEABILITY EVAL:	Dieseling	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	031.22	586.43	1404.7	07.57	06.53	
DATE: 2-28-79	CS (grams)	014.66	276.90	1480.8	05.45	04.63	
ODOM: 40543	HT (grams)	013.40	351.97	1260.1	05.58	04.75	
	COMP (GPM)	004.76	097.29	0373.7	01.58	01.35	16.4
	HFET (GPM)	002.88	109.76	0288.2	01.28		18.87
MAINT RETEST	FTP CT (grams)	020.39	486.64	1612.7	09.81	08.57	
DATE: 3-12-79	CS (grams)	007.15	227.19	1699.4	07.72	06.74	
ODOM: 40851	HT (grams)	010.63	304.79	1406.8	07.36	06.43	
	COMP (GPM)	002.93	081.36	0426.0	02.15	01.88	15.7
	HFET (GPM)	001.84	075.44	0335.6	02.47		19.28
RETEST	FTP CT (grams)	015.27	346.66	1586.4	17.05	16.20	
DATE: 5-24-79	CS (grams)	005.69	120.79	1805.4	18.39	17.47	
ODOM: 42954	HT (grams)	008.14	234.38	1452.8	15.33	14.56	
	COMP (GPM)	002.25	053.79	0442.1	04.60	04.36	16.6
	HFET (GPM)	001.55	042.99	0331.2	04.91		21.97

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	3900.4	07.2	0337.1	0220	07.2
LOW	3270.2	02.3	0709.5	0220	02.2
IDLE	3890.4	02.1	0241.6	0260	02.3
HI	3050.1	06.2	0387.2	0140	06.8
LOW	1449.6	00.4	1292.1	0100	00.5
IDLE	1449.6	00.4	0253.5	0120	00.4
HI	1876.0	01.2	2397.4	0100	01.1
LOW	0936.9	00.0	2397.4	0070	00.0
IDLE	0618.7	00.0	0585.4	0060	00.0

EPA NO. 62003

APPENDIX B

EPA NO.: 71000 MAKE/MODEL: HONDA/CVCC ENG:91-3V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	160	60	170	P	170	250	180	P
DEQ CO (%)	0.6	0.1	0.9	P	0.4	0.0	0.6	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				0 Minutes			
HTS HC (ppm)	130	30	110	-	230	60	220	-
HTS CO (%)	0.3	0.2	0.3	-	0.6	0.4	0.5	-
HTS NOX (ppm)	100	150	90	-	120	190	120	-
HTS RPM	820	-	870	-	780	-	780	-

	°F	RH	BARO	°F	RH	BARO
DEQ	40	79	30.10	67	46	29.98
HTS	62	53	30.22	80	38	29.93

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	760	(800)	750
DWELL	53	(52)	53
TIMING	+05	(+06)	+07
MECH ADVANCE	25	(22)	27
TOTAL ADVANCE	40	(37)	27
PROPANE IDLE CK	110		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Mech. Adv. @ 2500

Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.91	041.34	0997.6	10.12	08.52	
DATE: 1-23-79	CS (grams)	002.68	018.28	1054.6	05.93	05.02	
ODOM: 21021	HT (grams)	003.03	016.00	0821.4	09.79	08.22	
	COMP (GPM)	000.81	006.02	0260.2	02.11	01.78	32.6
	HFET (GPM)	000.19	002.07	0186.9	03.20		46.49
RETEST	FTP CT (grams)	009.11	060.78	0922.0	08.07	07.36	
DATE: 5-04-79	CS (grams)	003.95	017.32	1085.2	04.91	04.51	
ODOM: 22650	HT (grams)	003.02	014.61	0858.1	09.40	08.63	
	COMP (GPM)	001.28	006.90	0262.8	01.83	01.68	31.9
	HFET (GPM)	000.20	002.30	0205.4	03.62		42.29

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0523.9	00.2	2397.4	0020	00.2
LOW	0955.2	00,2	0993.6	0050	00.2
IDLE	2359.3	00.4	0129.4	0140	00.5
HI	0513.4	00.2	2152.9	0020	00.2
LOW	0856.1	00.2	0811.0	0050	00.2
IDLE	1667.0	00.4	0148.6	0100	00.4

APPENDIX B

EPA NO.: 71001 MAKE/MODEL: PLYMOUTH/VOLARE WG. ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	105	50	95	P	65	25	55	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	650	-	650	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	120	10	50	-	140	20	40	-
HTS CO (%)	0.0	0.0	0.0	-	0.1	0.0	0.0	-
HTS NOX (ppm)	70	190	80	-	60	250	70	-
HTS RPM	660	-	680	-	640	-	660	-

	°F	RH	BARO	°F	RH	BARO
DEQ	42	79	30.10	56	66	30.17
HTS	69	47	30.20	70	48	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(700)	610
DWELL	N/A		N/A
TIMING	+05	(+08)	+05
MECH ADVANCE	12	(17)	11
TOTAL ADVANCE	34	(39)	36
PROPANE IDLE CK	110		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spark Plug Voltage

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Poor Acceleration
OWNER SATISFIED WITH VEH: No

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.25	135.14	2350.7	07.85	06.55	
DATE:1-23-79	CS (grams)	000.66	000.75	2438.3	06.55	05.48	
ODOM:31241	HT (grams)	001.67	010.39	1953.7	09.60	08.05	
	COMP (GPM)	000.63	008.64	0608.4	02.05	01.72	14.2
	HFET (GPM)	000.08	000.11	0420.0	03.82		21.10
RETEST	FTP CT (grams)	008.66	211.83	2745.7	11.43	09.82	
DATE:4-25-79	CS (grams)	000.60	000.66	2653.8	08.73	07.50	
ODOM:34836	HT (grams)	001.16	016.35	2239.6	10.43	08.96	
	COMP (GPM)	000.66	013.48	0681.5	02.61	02.24	12.6
	HFET (GPM)	000.08	000.25	0487.8	04.62		18.15

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0098.7	00.0	1327.9	0005	00.0
LOW	0193.5	00.0	0960.2	0020	00.0
IDLE	0150.7	00.0	0105.5	0020	00.0
HI	0089.5	00.0	0654.6	0000	00.0
LOW	0144.6	00.0	0852.8	0000	00.0
IDLE	0150.7	00.0	0122.2	0010	00.0

APPENDIX B

EPA NO.: 71002 MAKE/MODEL: DATSUN/B210 ENG: 085-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	100	85	145	P	65	40	125	P
DEQ CO (%)	1.7	0.1	0.8	P	0.8	0.2	0.8	P
DEQ RPM	Not Available				800	-	800	P
DEQ QUEUE TIME	10 Minutes				20 Minutes			
HTS HC (ppm)	100	30	70	-	120	40	120	-
HTS CO (%)	1.8	0.2	0.9	-	0.8	0.2	0.8	-
HTS NOX (ppm)	50	150	50	-	40	110	50	-
HTS RPM	760	-	830	-	750	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	42	79	30.10	55	70	30.15
HTS	63	54	30.19	71	52	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	720	(700)	640
DWELL	55	(52)	50
TIMING	+09	(+10)	+11
MECH ADVANCE	18	(21)	19
TOTAL ADVANCE	25	(52)	33
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Fast Idle Speed
- Spark Plug Firing Volt.
- Total Adv. @ 2500
- Dist. Point Volt. Drop

Fast Idle Speed
Total Adv. @ 2500
Dist. Voltage Drop

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Spark Plugs
- Replaced Points & Condenser
- Replaced Air Filter
- Replaced Engine Oil
- Adjusted Carburetor, Idle Speed, Timing, Dwell

PERFORMED BY: Auto Dealer
COST: $67.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.37	039.01	1068.4	10.97	09.34	
DATE: 1-22-79	CS (grams)	003.21	024.47	1237.0	07.05	06.00	
ODOM: 20533	HT (grams)	003.93	020.70	0935.9	10.81	09.20	
	COMP (GPM)	000.98	007.07	0297.3	02.39	02.03	28.5
	HFET (GPM)	000.55	001.57	0202.8	04.08		42.84
RETEST	FTP CT (grams)	003.56	033.70	1056.0	08.74	07.84	
DATE: 4-25-79	CS (grams)	002.95	021.66	1238.3	05.82	05.22	
ODOM: 23086	HT (grams)	003.54	022.72	0984.2	09.22	08.27	
	COMP (GPM)	000.87	006.55	0300.4	01.98	01.77	28.3
	HFET (GPM)	000.52	002.13	0211.3	03.40		41.01

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0906.3	00.1	2187.3	0060	00.1
LOW	0615.7	00.1	0953.0	0040	00.1
IDLE	0676.9	00.5	0064.9	0050	00.5
HI	1137.7	00.1	1786.5	0090	00.1
LOW	0752.1	00.1	0854.7	0060	00.1
IDLE	0752.1	00.6	0119.4	0060	00.5

APPENDIX B

EPA NO.: 71003 MAKE/MODEL: TOYOTA/CELICA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	25	60	P	15	10	30	P
DEQ CO (%)	0.5	0.2	0.5	P	0.6	0.3	0.5	P
DEQ RPM	1000	-	1000	P	950	-	950	P
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	80	30	60	-	60	30	50	-
HTS CO (%)	0.8	0.3	0.6	-	1.1	0.3	0.7	-
HTS NOX (ppm)	40	100	60	-	40	260	40	-
HTS RPM	850	-	970	-	920	-	980	-

	°F	RH	BARO	°F	RH	BARO
DEQ	38	74	30.00	64	48	30.15
HTS	66	36	29.98	82	25	30.04

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(800)	800
DWELL	50	(52)	50
TIMING	+08	(+08)	+08
MECH ADVANCE	14	(23)	20
TOTAL ADVANCE	41	(50)	40
PROPANE IDLE CK	10		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500
Rotor Gap Voltage

EGR Func. Check
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.01	108.92	1434.4	10.88	08.93	
DATE: 1-25-79	CS (grams)	001.71	067.55	1743.1	08.03	06.59	
ODOM: 33243	HT (grams)	002.84	058.83	1295.1	11.67	09.73	
	COMP (GPM)	000.67	019.72	0413.1	02.58	02.13	19.9
	HFET (GPM)	000.24	011.29	0251.4	03.08		32.86
RETEST	FTP CT (grams)	002.86	098.76	1365.0	09.68	08.49	
DATE: 4-26-79	CS (grams)	001.67	073.20	1695.0	07.04	06.25	
ODOM: 36389	HT (grams)	002.65	062.23	1250.5	09.92	09.11	
	COMP (GPM)	000.59	020.15	0399.3	02.25	02.01	20.5
	HFET (GPM)	000.29	011.25	0237.7	02.86		34.60

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0381.8	00.5	1594.8	0015	00.6
LOW	0369.6	00.8	0939.6	0020	00.8
IDLE	0259.4	00.5	0087.9	0010	00.6
HI	0238.0	00.6	1182.3	0020	00.6
LOW	0280.9	00.6	0925.0	0030	00.6
IDLE	0274.7	00.6	0080.6	0030	00.6

APPENDIX B

EPA NO.: 71004 MAKE/MODEL: FORD/LTD WAGON ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	50	100	P	360	610	140	P
DEQ CO (%)	0.0	0.1	0.0	P	2.1	0.0	0.0	P
DEQ RPM	850	-	850	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	80	190	80	-	430	250	100	-
HTS CO (%)	0.0	0.0	0.0	-	3.6	0.0	0.0	-
HTS NOX (ppm)	100	100	90	-	120	100	110	-
HTS RPM	890	-	890	-	900	-	900	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	39	77	29.90		64	56	30.21	
HTS	67	45	29.80		79	40	30.15	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	630
DWELL	N/A		N/A
TIMING	+07	(+08)	+05
MECH ADVANCE	19	(22)	18
TOTAL ADVANCE	46	(51)	49
PROPANE IDLE CK	10		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spark Plug Firing Volt.

RETEST:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Service Station
COST: $14.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.43	059.49	2553.8	36.31	30.53	
DATE: 1-25-79	CS (grams)	004.77	071.33	2745.3	24.49	20.59	
ODOM: 32119	HT (grams)	003.20	028.29	2260.5	35.31	29.98	
	COMP (GPM)	001.36	015.07	0684.3	08.03	06.77	12.5
	HFET (GPM)	000.34	000.75	0517.6	10.38		17.06
RETEST	FTP CT (grams)	012.51	044.58	2851.1	03.85	03.38	
DATE: 5-01-79	CS (grams)	011.18	005.04	3003.9	03.17	02.80	
ODOM: 34603	HT (grams)	010.20	012.38	2446.3	03.38	02.96	
	COMP (GPM)	002.98	004.17	0749.9	00.90	00.79	11.6
	HFET (GPM)	000.73	000.81	0533.6	00.85		16.51

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0548.4	00.0	2397.4	0050	00.0
LOW	0419.9	00.0	2175.4	0060	00.0
IDLE	4010.4	05.4	0091.2	0280	05.5
HI	0666.4	00.0	0165.5	0070	00.0
LOW	1859.8	00.0	0083.0	0140	00.0
IDLE	0378.8	00.0	0143.7	0040	00.0

EPA NO.71004

APPENDIX B

EPA NO.: 71005 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 301-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	30	35	P	365	85	335	F
DEQ CO (%)	0.1	0.2	0.1	P	1.1	0.0	0.6	P
DEQ RPM	900	-	900	P	Not Available			
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	50	30	50	-	380	90	480	-
HTS CO (%)	0.0	0.4	0.0	-	0.4	0.1	0.5	-
HTS NOX (ppm)	110	160	60	-	100	200	100	-
HTS RPM	740	-	800	-	830	-	830	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	38	78	29.85		63	62	30.25	
HTS	70	36	29.80		80	41	30.17	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(555)	590
DWELL	N/A		N/A
TIMING	+10	(+12)	+08
MECH ADVANCE	25	(27)	22
TOTAL ADVANCE	49	(53)	47
PROPANE IDLE CK	30		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Cyl. Power Dist.

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Oil Filter
Replaced Engine Oil

PERFORMED BY: Service Station
COST: $15.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	009.67	105.00	2250.4	08.34	06.72		HI	0216.6	00.0	1412.8	0025	00.0
DATE: 1-29-79		CS (grams)	002.33	014.10	2425.5	06.20	05.00		LOW	0176.8	00.0	0396.1	0025	00.0
ODOM: 39077		HT (grams)	002.02	016.54	1961.6	09.35	07.53		IDLE	0127.9	00.0	0269.9	0015	00.0
		COMP (GPM)	001.02	009.16	0601.5	02.02	01.62	14.3						
	HFET	(GPM)	000.13	000.06	0405.3	02.10		21.85						
RETEST	FTP	CT (grams)	008.55	085.65	1939.3	07.80	06.91		HI	0452.2	00.0	1053.7	0050	00.0
DATE: 5-01-79		CS (grams)	005.59	054.48	2102.9	04.45	03.94		LOW	0357.4	00.0	0342.7	0060	00.0
ODOM: 45270		HT (grams)	003.93	030.58	1724.1	08.26	07.31		IDLE	2324.9	01.2	0126.7	0200	01.5
		COMP (GPM)	001.53	014.50	0522.6	01.67	01.48	16.1						
	HFET	(GPM)	000.20	001.34	0363.3	02.52		24.23						

EPA NO.71005

APPENDIX B

EPA NO.: 71006 MAKE/MODEL: CADILLAC/SEVILLE ENG: 350-FI TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	95	135	120	P	70	50	90	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	600	P	800	-	800	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	180	120	140	-	130	80	110	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	120	80	-	100	210	100	-
HTS RPM	680	-	680	-	710	-	710	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	31	42	29.85		63	43	30.30	
HTS	68	31	30.12		78	36	30.24	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	490	(650)	620
DWELL	99	(99)	99
TIMING	+09	(+10)	+09
MECH ADVANCE	29	(27)	31
TOTAL ADVANCE	58	(51)	50
PROPANE IDLE CK	90		110
DRIVEABILITY			
ENG STARTING	GOOD		GOOD
TRANSMISSION	OK		OK
CLUTCH	N/A		N/A
BRAKES	POOR		OK
OVERALL PERF	SURGES		OK
IDLE LIMITER CAPS:	FI		FI

PROBLEM AREAS:
- Idle Speed
- Total Adv. @ 2500
- Spark Plug Firing Volt.
- EGR - Func.

- Mech. Adv. @ 2500
- Spark Plug Firing Volt.
- Cyl. Power Dist.
- EGR - Func.

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Oil Filter
- Replaced Spark Plugs
- Replaced Engine Oil

PERFORMED BY: Service Station
COST: $28.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.33	122.75	2265.5	23.79	18.94	
DATE:1-31-79	CS (grams)	002.70	000.53	2190.9	15.98	12.72	
	HT (grams)	003.40	004.89	1809.5	20.18	16.06	
ODOM:38978	COMP (GPM)	001.10	007.48	0559.5	05.03	04.00	15.4
	HFET (GPM)	000.21	000.03	0373.2	04.23		23.72
RETEST	FTP CT (grams)	006.56	119.43	2183.9	23.53	21.39	
DATE:5-18-79	CS (grams)	002.09	000.51	2157.5	16.39	14.89	
	HT (grams)	002.62	002.21	1791.9	20.33	18.35	
ODOM:45925	COMP (GPM)	000.85	007.08	0549.1	05.08	04.61	15.8
	HFET (GPM)	000.20	000.04	0366.9	04.70		24.12

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0247.2	00.0	1131.3	0040	00.0
LOW	0213.5	00.0	0908.1	0100	00.0
IDLE	0201.3	00.0	0121.9	0060	00.0
HI	0193.5	00.0	1466.3	0020	00.0
LOW	0156.8	00.0	1079.6	0020	00.0
IDLE	0132.4	00.0	0136.5	0020	00.0

EPA NO.71006

APPENDIX B

EPA NO.: 71007 MAKE/MODEL: FORD/LTD ENG: 351-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	0	0	10	P	20	45	20	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	7 Minutes				15 Minutes			
HTS HC (ppm)	30	20	20	-	20	20	20	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	180	80	-	80	240	80	-
HTS RPM	910	-	930	-	930	-	930	-

	°F	RH	BARO	°F	RH	BARO
DEQ	37	36	29.85	60	60	30.40
HTS	59	38	29.96	73	46	30.13

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(650)	660
DWELL	N/A		N/A
TIMING	+05	(+09)	+06
MECH ADVANCE	14	(22)	11
TOTAL ADVANCE	40	(50)	39
PROPANE IDLE CK	80		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- EGR

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
EGR

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.21	188.47	2539.2	19.94	15.79	
DATE: 2-01-79	CS (grams)	001.03	001.66	3099.4	11.66	09.36	
ODOM: 16568	HT (grams)	001.07	002.76	2326.9	21.84	17.40	
	COMP (GPM)	001.09	011.24	0735.7	04.36	03.48	11.7
	HFET (GPM)	000.12	000.02	0432.9	05.39		20.47
RETEST	FTP CT (grams)	003.73	041.91	2664.5	19.44	16.94	
DATE: 4-26-79	CS (grams)	001.02	000.77	3053.4	10.80	09.41	
ODOM: 17892	HT (grams)	001.26	006.20	2281.6	20.25	17.65	
	COMP (GPM)	000.45	002.98	0733.3	04.09	03.57	12.0
	HFET (GPM)	000.13	000.02	0447.7	05.79		19.79

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0192.1	00.0	1526.8	0020	00.0
LOW	0170.7	00.0	0551.4	0020	00.0
IDLE	0146.2	00.0	0153.4	0020	00.0
HI	0135.4	00.0	1733.7	0050	00.0
LOW	0126.2	00.0	0494.6	0040	00.0
IDLE	0107.9	00.0	0112.7	0020	00.0

APPENDIX B

EPA NO.: 71008 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-FI TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	135	85	75	P	145	80	155	P
DEQ CO (%)	3.7	1.9	2.0	P	5.4	1.1	5.4	F
DEQ RPM	800	-	800	P	875	-	900	P
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	170	70	130	-	180	80	180	-
HTS CO (%)	4.2	1.2	4.2	-	5.7	1.5	5.6	-
HTS NOX (ppm)	80	220	100	-	120	190	130	-
HTS RPM	800	-	800	-	850	-	930	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	34	39	29.85		59	61	29.70	
HTS	62	24	29.95		71	48	29.62	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	1040	(925)	850
DWELL	55	(47)	53
TIMING	-03	(-03)	-03
MECH ADVANCE	22	(24)	12
TOTAL ADVANCE	30	(30)	28
PROPANE IDLE CK	0		0
DRIVEABILITY			
ENG STARTING	GOOD		GOOD
TRANSMISSION	OK		OK
CLUTCH	OK		OK
BRAKES	OK		OK
OVERALL PERF	OK		OK
IDLE LIMITER CAPS:	FI		FI

PROBLEM AREAS: Idle Speed
Spark Plug Firing Volt.
Dwell

Mech. Adv. @ 2500
Spark Plug Firing Volt.
Dwell

MAINTENANCE MAINT PRIOR TO RETEST

Replaced Muffler

PERFORMED BY: Independent Repair Garage
COST: $47.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.75	038.05	1197.4	10.80	08.61	
DATE: 2-01-79	CS (grams)	006.18	022.69	1470.1	06.16	04.94	
ODOM: 9569	HT (grams)	005.75	024.93	1079.6	11.18	08.97	
	COMP (GPM)	001.71	007.10	0346.7	02.29	01.83	24.4
	HFET (GPM)	001.42	026.63	0210.0	02.44		34.59
RETEST	FTP CT (grams)	006.92	077.92	1094.2	08.73	07.71	
DATE: 5-08-79	CS (grams)	006.94	109.31	1254.9	04.56	04.03	
ODOM: 10845	HT (grams)	005.27	065.55	0992.3	08.89	07.72	
	COMP (GPM)	001.72	024.02	0305.5	01.78	01.57	25.4
	HFET (GPM)	001.06	012.22	0221.2	03.09		36.38

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1817.0	00.6	2274.2	0080	00.5
LOW	2211.7	00.8	0864.4	0130	00.9
IDLE	1422.2	01.2	0138.9	0120	01.2
HI	2181.9	00.7	2099.0	0110	00.7
LOW	2341.0	01.3	0621.2	0120	01.3
IDLE	2497.0	04.2	0069.7	0140	04.0

EPA NO. 71008

APPENDIX B

EPA NO.: 71009 MAKE/MODEL: CHEV/CAPRICE ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	40	45	P	45	30	40	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1050	-	1050	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	180	80	140	-	150	100	130	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	170	120	-	120	180	130	-
HTS RPM	980	-	1000	-	900	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	33	40	29.90	58	47	30.25
HTS	61	35	30.06	72	34	30.19

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	620	(500)	600
DWELL	N/A		N/A
TIMING	+09	(+08)	+09
MECH ADVANCE	22	(22)	22
TOTAL ADVANCE	36	(36)	38
PROPANE IDLE CK	110		190

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLE,BACKFIRES

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Idle Speed Idle Speed
Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Service Station
COST: $8.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.84	068.60	1892.8	10.56	08.40	
DATE:2-02-79	CS (grams)	000.71	002.07	2087.4	05.93	04.75	
ODOM:23989	HT (grams)	001.56	015.59	1688.8	07.35	05.94	
	COMP (GPM)	000.55	005.39	0515.2	01.95	01.57	16.9
	HFET (GPM)	000.11	001.99	0386.1	01.72		22.76
RETEST	FTP CT (grams)	004.64	047.70	1854.3	09.05	07.58	
DATE: 5-10-79	CS (grams)	000.57	000.06	2112.9	06.07	05.17	
ODOM: 26490	HT (grams)	000.97	009.05	1708.8	07.18	06.11	
	COMP (GPM)	000.42	003.43	0517.9	01.87	01.59	16.9
	HFET (GPM)	000.06	000.14	0360.7	01.43		24.56

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0848.2	00.0	0456.4	0070	00.0
LOW	0462.7	00.0	0303.6	0050	00.0
IDLE	0303.7	00.0	0320.4	0040	00.0
HI	0156.8	00.0	0468.4	0020	00.0
LOW	0107.9	00.0	0408.7	0020	00.0
IDLE	0058.9	00.0	0320.4	0020	00.0

EPA NO.71009

APPENDIX B

EPA NO.: 71010 MAKE/MODEL: TOYOTA/CORONA ENG: 134-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	15	55	P	50	30	55	P
DEQ CO (%)	0.8	0.4	0.1	P	0.7	0.4	0.7	P
DEQ RPM	1000	-	1000	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				20 Minutes			
HTS HC (ppm)	80	30	70	-	70	30	70	-
HTS CO (%)	0.7	0.4	0.6	-	0.8	0.4	0.7	-
HTS NOX (ppm)	40	90	50	-	50	80	50	-
HTS RPM	900	-	930	-	840	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	34	42	29.90	59	60	30.12
HTS	76	22	30.05	68	50	30.05

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(855)	760
DWELL	54	(52)	54
TIMING	000	(+08)	+14
MECH ADVANCE	22	(22)	25
TOTAL ADVANCE	41	(42)	54
PROPANE IDLE CK	0		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
EGR

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.76	114.11	1511.4	12.49	11.29	
DATE: 2-06-79	CS (grams)	001.41	046.00	1803.1	05.34	04.88	
	HT (grams)	001.48	052.12	1368.0	12.02	10.98	
ODOM: 12982	COMP (GPM)	000.52	016.64	0431.0	02.34	02.13	19.3
	HFET (GPM)	000.16	009.85	0272.7	04.00		30.72
RETEST	FTP CT (grams)	003.72	104.34	1578.8	13.84	12.29	
DATE: 5-02-79	CS (grams)	001.44	044.11	1832.8	06.84	06.08	
	HT (grams)	002.11	044.04	1358.1	13.73	12.20	
ODOM: 14408	COMP (GPM)	000.57	015.21	0438.1	02.75	02.44	19.1
	HFET (GPM)	000.11	008.69	0276.2	04.08		30.56

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0221.1	00.6	1387.6	0030	00.6
LOW	0095.7	00.4	0325.1	0020	00.4
IDLE	0346.5	00.6	0053.0	0040	00.6
HI	0251.7	00.5	1461.6	0020	00.4
LOW	0126.2	00.4	0446.9	0020	00.3
IDLE	0343.4	00.6	0067.3	0020	00.6

EPA NO. 71010

EPA NO.: 71011 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	75	80	60	P	35	20	40	P
DEQ CO (%)	0.1	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	900	-	900	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	70	50	50	-	40	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	90	50	-	30	80	40	-
HTS RPM	900	-	910	-	900	-	890	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	30	44	29.90	56	63	29.70
HTS	77	20	30.29	66	61	29.62

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	860	(855)	830
DWELL	N/A		N/A
TIMING	+02	(+06)	+03
MECH ADVANCE	20	(20)	22
TOTAL ADVANCE	40	(44)	40
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	FALSE	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	STUMBLES, STRETCHY	SURGES, STUMBLES, BACKFIRES

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Ign. Timing @ Idle Ign. Timing @ Idle

MAINTENANCE MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $8.00

OWNER'S DRIVEABILITY EVAL: Rough Idle
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.51	051.07	1397.5	05.77	05.28	
DATE: 2-02-79	CS (grams)	001.94	002.50	1639.4	04.53	04.07	
ODOM: 16025	HT (grams)	002.25	005.79	1248.0	06.48	05.93	
	COMP (GPM)	000.75	003.70	0393.6	01.43	01.30	22.1
	HFET (GPM)	000.12	000.09	0253.7	01.98		34.89
RETEST	FTP CT (grams)	006.26	055.03	1278.1	08.83	07.70	
DATE: 5-09-79	CS (grams)	001.65	003.61	1419.1	06.80	05.93	
ODOM: 18714	HT (grams)	002.11	007.43	1158.3	09.59	08.42	
	COMP (GPM)	000.74	004.20	0350.5	02.14	01.87	24.7
	HFET (GPM)	000.11	000.06	0238.0	02.91		37.18

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0127.9	00.0	0730.9	0020	00.0
LOW	0182.9	00.0	0478.6	0020	00.0
IDLE	0758.2	00.0	0073.3	0040	00.0
HI	0120.1	00.0	1115.4	0040	00.0
LOW	0172.1	00.0	0790.7	0040	00.0
IDLE	0508.6	00.0	0074.5	0040	00.0

EPA NO. 71011

APPENDIX B

EPA NO.: 71012 MAKE/MODEL: CHEV/MALIBU ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	75	40	60	P	45	25	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	750	-	750	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	250	60	160	-	120	30	100	-
HTS CO (%)	0.0	0.2	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	140	70	-	80	160	80	-
HTS RPM	680	-	720	-	740	-	710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	47	82	30.10	57	54	30.20
HTS	64	60	30.06	72	38	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	510	(500)	550
DWELL	N/A		N/A
TIMING	+08	(+08)	+07
MECH ADVANCE	21	(22)	21
TOTAL ADVANCE	41	(37)	36
PROPANE IDLE CK	160		170

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	STRETCHY
IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	None	None

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.92	181.63	1900.0	07.33	06.37	
DATE: 2-07-79	CS (grams)	001.39	014.49	2119.8	03.85	03.31	
ODOM: 29170	HT (grams)	003.25	062.20	1708.4	04.51	03.91	
	COMP (GPM)	001.06	017.07	0521.4	01.28	01.10	16.1
	HFET (GPM)	000.57	014.75	0368.1	01.01		22.56
RETEST	FTP CT (grams)	008.06	156.84	1988.5	08.09	07.20	
DATE: 5-03-79	CS (grams)	001.23	018.13	2166.2	03.76	03.34	
ODOM: 33981	HT (grams)	006.63	055.14	1731.8	04.56	04.09	
	COMP (GPM)	001.13	015.60	0534.5	01.31	01.17	15.8
	HFET (GPM)	000.52	017.13	0376.4	00.92		21.90

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1247.8	00.8	0379.1	0080	00.9
LOW	0244.1	00,0	0269.9	0020	00.0
IDLE	0115.6	00.0	0243.2	0010	00.0
HI	0369.6	00.5	0221.4	0050	00.5
LOW	0189.1	00.1	0284.4	0030	00.0
IDLE	0085.0	00.0	0277.2	0020	00.0

EPA NO. 71012

APPENDIX B

EPA NO.: 71013 MAKE/MODEL: CHEV/IMPALA ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	150	65	105	P	60	40	80	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	500	-	500	P	500	-	500	P
DEQ QUEUE TIME	25 Minutes				4 Minutes			
HTS HC (ppm)	550	90	350	-	190	50	100	-
HTS CO (%)	0.0	0.1	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	160	70	-	100	170	100	-
HTS RPM	400	-	460	-	440	-	490	-

	°F	RH	BARO	°F	RH	BARO
DEQ	45	77	29.95	62	51	30.14
HTS	76	38	30.18	74	39	30.07

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	410	(500)	400
DWELL	N/A		N/A
TIMING	+07	(+08)	+07
MECH ADVANCE	20	(22)	18
TOTAL ADVANCE	35	(37)	34
PROPANE IDLE CK	90		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Idle Speed
Mech. Adv. @ 2500

Idle Speed
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Oil Filter
Replaced Engine Oil

PERFORMED BY: Owner
COST: $6.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.31	099.96	1863.2	07.96	07.10	
DATE: 2-07-79	CS (grams)	002.60	009.89	2018.1	04.56	04.14	
ODOM: 29813	HT (grams)	002.35	015.24	1674.8	06.63	05.98	
	COMP (GPM)	000.94	008.21	0503.2	01.57	01.41	17.1
	HFET (GPM)	000.26	000.55	0378.6	01.31		23.32
RETEST	FTP CT (grams)	008.08	093.18	1856.6	09.00	08.19	
DATE: 5-03-79	CS (grams)	001.50	005.80	2175.5	05.88	05.32	
ODOM: 32242	HT (grams)	001.91	018.86	1750.3	07.32	06.66	
	COMP (GPM)	000.81	007.55	0529.5	01.86	01.68	16.3
	HFET (GPM)	000.13	000.45	0385.3	01.48		22.95

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0703.1	00.1	0417.9	0000	00.0
LOW	0516.5	00.0	0357.2	0040	00.2
IDLE	0819.4	00.0	0087.9	0020	00.1
HI	0323.7	00.0	0442.2	0030	00.0
LOW	0228.8	00.0	0437.3	0040	00.0
IDLE	0182.9	00.0	0121.9	0020	00.0

EPA NO. 71013

APPENDIX B

EPA NO.: 71014 MAKE/MODEL: HONDA/CIVIC ENG: 76-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	35	40	P	135	145	135	P
DEQ CO (%)	0.1	0.4	0.2	P	0.1	0.3	0.1	P
DEQ RPM	1200	-	1300	P	1050	-	1050	P
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	50	30	40	-	60	30	50	-
HTS CO (%)	0.1	0.4	0.1	-	0.1	0.4	0.1	-
HTS NOX (ppm)	60	80	80	-	80	100	80	-
HTS RPM	1060	-	1020	-	940	-	1010	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	70	29.95	60	48	30.40
HTS	74	39	30.18	75	40	30.32

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	910	(750)	790
DWELL	53	(52)	52
TIMING	-05	(000)	-02
MECH ADVANCE	27	(20)	16
TOTAL ADVANCE	20	(37)	29
PROPANE IDLE CK	170		200

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Spark Plug Firing Volt.
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Oil Filter
- Replaced Engine Oil

PERFORMED BY: Service Station
COST: $15.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.17	131.27	1151.3	07.24	06.62	
DATE: 2-08-79	CS (grams)	002.32	048.85	1412.6	03.93	03.54	
ODOM: 9224	HT (grams)	002.47	044.67	1071.3	07.31	06.59	
	COMP (GPM)	000.91	017.43	0335.8	01.49	01.35	24.2
	HFET (GPM)	000.30	007.34	0233.8	02.39		36.01
RETEST	FTP CT (grams)	003.20	034.27	1092.1	07.62	06.81	
DATE: 5-15-79	CS (grams)	001.98	038.39	1358.2	04.38	03.94	
ODOM: 10042	HT (grams)	002.27	030.77	1037.6	07.56	06.79	
	COMP (GPM)	000.62	009.42	0322.6	01.60	01.43	26.1
	HFET (GPM)	000.30	005.76	0227.3	02.42		37.37

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0482.8	00.5	1048.8	0030	00.6
LOW	0394.1	00.7	0255.3	0020	00.7
IDLE	0779.6	00.2	0148.6	0040	00.2
HI	0504.2	00.4	1029.4	0040	00.4
LOW	0464.5	00.5	0369.4	0040	00.6
IDLE	0528.7	00.1	0092.8	0040	00.1

EPA NO. 71014

APPENDIX B

EPA NO.: 71015 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 301-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	40	35	P	240	40	70	P
DEQ CO (%)	0.1	0.1	0.0	P	0.4	0.0	0.1	P
DEQ RPM	550	-	550	P	700	-	700	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	100	20	60	-	170	20	130	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	180	100	-	80	170	80	-
HTS RPM	520	-	580	-	570	-	600	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	77	30.00	59	69	29.95
HTS	67	58	30.05	74	54	29.87

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	440	(555)	460
DWELL	N/A		N/A
TIMING	000	(+12)	000
MECH ADVANCE	15	(27)	12
TOTAL ADVANCE	37	(52)	39
PROPANE IDLE CK	110		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filters - Condition

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.
Air Filters - Cond.

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.00	160.14	2181.8	06.54	05.84	
DATE: 2-12-79	CS (grams)	002.65	017.61	2267.0	04.32	03.88	
ODOM: 27959	HT (grams)	003.09	052.15	1845.8	06.86	06.16	
	COMP (GPM)	001.16	015.49	0567.6	01.47	01.32	14.9
	HFET (GPM)	000.17	001.04	0406.9	02.55		21.68
RETEST	FTP CT (grams)	007.94	106.65	2121.5	06.86	06.04	
DATE: 5-08-79	CS (grams)	002.37	011.50	2130.8	04.52	03.98	
ODOM: 30845	HT (grams)	002.50	021.47	1757.8	07.56	06.65	
	COMP (GPM)	000.96	009.28	0539.3	01.57	01.38	15.9
	HFET (GPM)	000.16	000.83	0378.5	02.32		23.32

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0250.3	00.0	1048.8	0040	00.0
LOW	0204.4	00.0	0345.1	0040	00.0
IDLE	0219.7	00.0	0163.1	0040	00.0
HI	0239.4	00.0	0969.7	0020	00.0
LOW	0202.7	00.0	0389.6	0020	00.0
IDLE	0416.9	00.1	0098.3	0050	00.2

APPENDIX B

EPA NO.: 71016 MAKE/MODEL: TOYOTA/CELICA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	90	40	140	P	30	20	45	P
DEQ CO (%)	0.4	0.2	0.3	P	0.4	0.2	0.2	P
DEQ RPM	1000	-	1000	P	1050	-	1050	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	160	30	80	-	110	30	100	-
HTS CO (%)	0.3	0.3	0.3	-	0.3	0.3	0.3	-
HTS NOX (ppm)	70	110	70	-	60	100	60	-
HTS RPM	880	-	920	-	960	-	990	-

	°F	RH	BARO	°F	RH	BARO
DEQ	47	79	29.90	58	51	30.00
HTS	57	71	29.79	73	39	29.94

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	910	(855)	790
DWELL	55	(52)	55
TIMING	+12	(+08)	+05
MECH ADVANCE	25	(22)	14
TOTAL ADVANCE	56	(43)	54
PROPANE IDLE CK	100		30

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Spark Plug Firing Volt.
Dwell

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Spark Plug Firing Volt.
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.99	115.62	1468.2	07.36	06.44	
DATE: 2-13-79	CS (grams)	002.08	050.85	1758.9	03.97	03.48	
ODOM: 17815	HT (grams)	003.14	047.64	1318.1	07.16	06.27	
	COMP (GPM)	000.97	017.03	0418.9	01.50	01.31	19.8
	HFET (GPM)	000.17	009.26	0255.3	02.02		32.80
RETEST	FTP CT (grams)	006.11	091.89	1402.4	07.83	06.63	
DATE: 5-09-79	CS (grams)	001.96	040.51	1705.6	03.69	03.23	
ODOM: 20949	HT (grams)	002.40	036.78	1265.1	07.20	07.25	
	COMP (GPM)	000.79	013.46	0404.0	01.49	01.36	20.7
	HFET (GPM)	000.16	006.35	0233.6	01.89		36.34

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0164.6	00.5	0888.6	0030	00.6
LOW	0176.8	00.7	0454.3	0030	00.8
IDLE	0495.1	00.3	0075.8	0060	00.3
HI	0257.8	00.4	0910.1	0020	00.4
LOW	0132.4	00.3	0411.1	0020	00.3
IDLE	0487.2	00.2	0076.8	0040	00.2

APPENDIX B

EPA NO.: 71017 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	15	20	P	15	15	20	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	30	50	30	-	60	80	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.5	0.0	0.0	-
HTS NOX (ppm)	40	80	50	-	60	90	60	-
HTS RPM	740	-	740	-	670	-	710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	42	75	29.80	66	39	30.15
HTS	69	43	29.80	80	38	30.09

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	900	(855)	650
DWELL	N/A		N/A
TIMING	+06	(+06)	+06
MECH ADVANCE	21	(20)	20
TOTAL ADVANCE	45	(44)	29
PROPANE IDLE CK	40		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	SURGES, STUMBLES, BACKFIRES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.13	014.67	1539.9	06.53	05.53	
DATE: 2-21-79	CS (grams)	001.31	002.56	1732.8	03.14	02.66	
ODOM: 18292	HT (grams)	002.01	003.93	1295.7	06.40	05.50	
	COMP (GPM)	000.56	001.48	0417.8	01.28	01.09	21.0
	HFET (GPM)	000.11	000.09	0269.1	01.59		32.90
RETEST	FTP CT (grams)	004.30	020.53	1405.4	05.65	05.34	
DATE: 5-22-79	CS (grams)	001.80	004.98	1619.5	02.89	02.71	
ODOM: 21450	HT (grams)	002.24	005.68	1239.5	05.40	05.06	
	COMP (GPM)	000.66	002.27	0390.7	01.12	01.05	22.4
	HFET (GPM)	000.10	000.09	0253.1	01.35		34.97

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0342.1	00.0	0612.0	0070	00.0
LOW	0164.6	00.0	0163.1	0040	00.0
IDLE	0118.7	00.0	0056.4	0030	00.0
HI	0294.5	00.0	0504.2	0030	00.0
LOW	0159.9	00.0	0165.2	0020	00.0
IDLE	0163.0	00.0	0055.4	0020	00.0

EPA NO. 71017

APPENDIX B

EPA NO.: 71018 MAKE/MODEL: TOYOTA/CORONA ENG: 134-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	15	35	P	25	55	25	P
DEQ CO (%)	0.4	0.2	0.1	P	0.6	0.0	0.5	P
DEQ RPM	850	-	850	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	30	20	30	-	40	20	50	-
HTS CO (%)	0.8	0.3	0.8	-	0.9	0.3	0.8	-
HTS NOX (ppm)	60	100	60	-	40	90	60	-
HTS RPM	840	-	820	-	800	-	840	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	48	79	29.85		60	83	30.35	
HTS	57	71	29.80		82	27	30.29	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	780	(855)	660
DWELL	54	(52)	55
TIMING	+07	(+08)	+05
MECH ADVANCE	19	(23)	19
TOTAL ADVANCE	55	(43)	18
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Dwell

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	003.23	080.55	1557.3	13.17	11.14		HI	0117.1	00.3	0893.3	0020	00.2
DATE: 2-14-79	CS (grams)	000.78	037.47	1923.1	05.38	04.55		LOW	0043.7	00.2	0272.6	0020	00.2
	HT (grams)	001.25	036.71	1416.8	10.98	09.29		IDLE	0150.7	00.1	0048.2	0040	00.2
ODOM: 14790	COMP (GPM)	000.38	012.40	0453.4	02.31	01.95	18.7						
	HFET (GPM)	000.04	006.17	0284.3	03.10		30.15						
RETEST	FTP CT (grams)	002.97	077.22	1513.8	08.27	07.31		HI	0127.9	00.4	0713.9	0000	00.3
DATE: 5-11-79	CS (grams)	000.80	036.78	1951.6	03.64	03.22		LOW	0051.4	00.3	0257.8	0000	00.2
	HT (grams)	001.18	036.67	1398.5	07.50	06.63		IDLE	0137.0	00.3	0056.4	0000	00.3
ODOM: 16364	COMP (GPM)	000.37	012.12	0453.3	01.53	01.35	18.7						
	HFET (GPM)	000.09	007.46	0268.1	02.09		31.66						

EPA NO. 71018

APPENDIX B

EPA NO.: 71019 MAKE/MODEL: BUICK/REGAL ENG:231-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	35	30	P	20	15	25	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.1	0.0	P
DEQ RPM	1000	-	1000	P	1050	-	1100	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	120	120	90	-	120	120	100	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	150	140	-	120	140	120	-
HTS RPM	780	-	900	-	890	-	990	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	48	79	29.85		59	41	30.25	
HTS	72	49	29.71		75	30	30.17	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	640
DWELL	N/A		N/A
TIMING	+11	(+12)	+11
MECH ADVANCE	22	(22)	21
TOTAL ADVANCE	43	(46)	40
PROPANE IDLE CK	200		220

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Air Filters - Condition

Total Adv. @ 2500
Air Filters - Condition

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.42	083.04	1611.0	08.16	07.28	
	CS (grams)	000.82	010.43	1611.4	04.97	04.43	
DATE: 2-13-79	HT (grams)	001.14	012.16	1422.4	04.96	04.39	
ODOM: 9481	COMP (GPM)	000.56	007.07	0415.3	01.51	01.34	20.7
	HFET (GPM)	000.07	000.94	0331.0	01.39		26.66
RETEST	FTP CT (grams)	007.56	145.68	1761.3	10.21	08.63	
	CS (grams)	000.64	009.21	1955.0	06.71	05.77	
DATE: 5-10-79	HT (grams)	001.64	021.34	1614.4	08.64	07.43	
ODOM: 10434	COMP (GPM)	000.64	011.20	0484.3	02.14	01.83	17.6
	HFET (GPM)	000.06	000.70	0351.2	02.27		25.16

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0144.6	00.0	0587.8	0040	00.0
LOW	0156.8	00.0	0193.8	0040	00.0
IDLE	0068.1	00.0	0955.4	0030	00.0
HI	0381.8	00.0	0815.9	0030	00.0
LOW	0219.7	00.0	0238.3	0030	00.0
IDLE	0124.8	00.0	1097.3	0020	00.0

EPA NO. 71019

APPENDIX B

EPA NO.: 71020 MAKE/MODEL: CHEV/CHEVETTE ENG: 85-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	15	20	25	P	20	25	70	P
DEQ CO (%)	0.0	0.0	0.0	P	0.1	0.6	0.5	P
DEQ RPM	1000	-	1200	P	950	-	950	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	130	40	50	-	20	20	20	-
HTS CO (%)	0.3	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	500	100	-	120	300	110	-
HTS RPM	860	-	1150	-	980	-	970	-

	°F	RH	BARO	°F	RH	BARO
DEQ	44	77	29.75	66	42	30.15
HTS	75	40	29.98	77	35	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	860	(800)	630
DWELL	N/A		N/A
TIMING	+07	(+08)	+09
MECH ADVANCE	20	(18)	18
TOTAL ADVANCE	45	(48)	54
PROPANE IDLE CK	110		200

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	None	Idle Speed Fast Idle Speed Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.88	119.18	1215.9	07.52	06.38	
DATE:2-15-79	CS (grams)	000.90	011.95	1318.7	07.16	06.04	
	HT (grams)	002.30	030.23	1110.2	06.79	05.77	
ODOM:13911	COMP (GPM)	000.69	010.72	0329.9	01.90	01.61	25.4
	HFET (GPM)	000.57	010.77	0255.3	01.89		32.37
RETEST	FTP CT (grams)	004.56	089.47	1228.5	07.70	06.86	
DATE:5-17-79	CS (grams)	000.46	000.75	1307.8	08.13	07.14	
	HT (grams)	000.83	004.90	1134.6	07.89	07.02	
ODOM:16379	COMP (GPM)	000.39	005.60	0331.0	02.12	01.88	26.0
	HFET (GPM)	000.08	000.28	0258.1	02.33		34.26

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1951.6	00.8	1458.9	0120	00.9
LOW	0323.7	00.0	2014.5	0040	00.0
IDLE	1094.8	00.9	0223.8	0100	01.0
HI	0461.4	00.0	1230.8	0040	00.0
LOW	0182.9	00.0	1611.7	0030	00.0
IDLE	0072.8	00.0	0185.0	0020	00.0

EPA NO. 71020

APPENDIX B

EPA NO.: 71021 MAKE/MODEL: CHEV/MONTE CARLO ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	80	25	25	P				
DEQ CO (%)	0.0	0.0	0.0	P				
DEQ RPM	700	-	750	P				
DEQ QUEUE TIME	20 Minutes							
HTS HC (ppm)	60	20	50	-				
HTS CO (%)	0.0	0.0	0.0	-				
HTS NOX (ppm)	60	170	70	-				
HTS RPM	700	-	720	-				

No Retest - Vehicle Dropped from Program

	°F	RH	BARO	°F	RH	BARO
DEQ	41	67	29.79			
HTS	70	40	29.86			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	540	(500)
DWELL	N/A	
TIMING	+08	(+08)
MECH ADVANCE	24	(23)
TOTAL ADVANCE	30	(33)
PROPANE IDLE CK	240	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: OK

PROBLEM AREAS: None

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX B

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	006.95	088.96	2230.3	10.12	08.85		HI	0150.7	00.0	0788.3	0020	00.0
DATE: 2-16-79	CS (grams)	000.62	008.43	2481.6	05.28	04.59		LOW	0058.9	00.0	0232.0	0000	00.0
	HT (grams)	002.51	009.17	2013.1	08.97	07.93		IDLE	0031.4	00.0	0301.3	0000	00.0
ODOM: 3060	COMP (GPM)	000.67	006.92	0611.7	01.97	01.72	14.2						
	HFET (GPM)	000.06	000.42	0444.1	02.46		19.93						
RETEST	FTP CT (grams)							HI					
DATE:	CS (grams)							LOW					
	HT (grams)							IDLE					
ODOM:	COMP (GPM)												
	HFET (GPM)												

EPA NO. 71021

APPENDIX B

EPA NO.: 71022 MAKE/MODEL: HONDA/CIVIC ENG: 76-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	140	25	50	P	40	35	50	P
DEQ CO (%)	0.5	0.5	0.5	P	0.1	0.3	0.1	P
DEQ RPM	800	-	1100	P	1100	-	1100	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	50	30	30	-	60	30	50	-
HTS CO (%)	0.2	0.6	0.2	-	0.1	0.5	0.2	-
HTS NOX (ppm)	70	70	60	-	60	70	70	-
HTS RPM	1040	-	1030	-	950	-	1010	-

	°F	RH	BARO	°F	RH	BARO
DEQ	44	69	29.75	66	54	30.15
HTS	76	34	29.68	76	48	30.09

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	790	(755)	790
DWELL	53	(52)	53
TIMING	+02	(00)	000
MECH ADVANCE	23	(20)	16
TOTAL ADVANCE	19	(20)	11
PROPANE IDLE CK	210		120

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt. Total Adv. @ 2500

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.80	047.86	1224.2	10.33	08.89	
DATE: 2-23-79	CS (grams)	003.82	060.38	1396.4	04.72	04.07	
ODOM: 30106	HT (grams)	003.73	049.80	1067.7	09.11	07.84	
	COMP (GPM)	001.07	014.58	0337.5	01.91	01.65	24.4
	HFET (GPM)	000.38	009.91	0246.1	02.88		33.73
RETEST	FTP CT (grams)	003.68	040.60	1065.1	08.75	08.18	
DATE: 5-24-79	CS (grams)	004.16	045.29	1351.6	04.85	04.50	
ODOM: 33993	HT (grams)	004.54	037.17	1048.2	09.54	08.86	
	COMP (GPM)	001.11	011.19	0320.9	01.87	01.74	25.9
	HFET (GPM)	000.51	005.90	0233.8	03.38		36.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0559.3	00.6	1313.3	0030	00.6
LOW	0476.7	00.8	0308.7	0030	00.8
IDLE	0574.6	00.2	0087.9	0040	00.2
HI	0733.7	00.5	1449.2	0050	00.6
LOW	1529.3	01.1	0626.6	0120	01.1
IDLE	0626.6	00.1	0121.9	0040	00.1

EPA NO. 71022

APPENDIX B

EPA NO.: 72000 MAKE/MODEL: VOLVO/244 ENG: 170-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	260	120	290	F	230	55	260	P	70	25	65	P
DEQ CO (%)	6.7	2.1	6.5	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	850	-	850	P	900	-	900	P	950	-	950	P
DEQ QUEUE TIME	15 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	260	100	300	-	670	60	490	-	90	50	80	-
HTS CO (%)	6.6	7.6	6.8	-	0.1	0.0	0.0	-	0.9	0.4	0.6	-
HTS NOX (ppm)	90	170	100	-	60	200	70	-	80	190	80	-
HTS RPM	840	-	880	-	970	-	930	-	940	-	930	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	43	78	30.10		38	77	29.90		64	39	30.10	
HTS	65	52	30.18		69	39	30.13		81	29	30.01	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	810	(900)	890	840
DWELL	N/A		N/A	N/A
TIMING	+08	(+15)	+16	+14
MECH ADVANCE	23	(34)	30	31
TOTAL ADVANCE	25	(34)	37	40
PROPANE IDLE CK	0		240	220
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	OK		OK	OK
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	FI		FI	FI
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500		None	Total Adv. @ 2500 Spk Plg Frng Volt. EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Fuel Injection Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$30.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.78	174.26	1560.9	12.70	10.51	
DATE: 1-23-79	CS (grams)	011.17	252.44	1746.5	06.38	05.27	
	HT (grams)	007.38	126.16	1401.2	11.27	09.39	
ODOM: 16932	COMP (GPM)	002.78	053.24	0428.8	02.43	02.02	17.0
	HFET (GPM)	000.78	008.69	0309.2	02.89		27.26
MAINT RETEST	FTP CT (grams)	004.40	047.52	1575.4	12.66	10.09	
DATE: 1-31-79	CS (grams)	001.58	000.39	1923.4	06.13	04.88	
	HT (grams)	001.26	001.20	1431.6	10.75	08.50	
ODOM: 17090	COMP (GPM)	000.56	002.87	0455.6	02.36	01.88	19.2
	HFET (GPM)	000.09	000.04	0304.9	03.00		29.05
RETEST	FTP CT (grams)	003.59	045.00	1612.1	13.44	11.89	
DATE: 4-26-79	CS (grams)	001.23	001.42	1970.1	07.53	06.70	
	HT (grams)	001.76	006.15	1464.8	12.57	11.23	
ODOM: 18711	COMP (GPM)	000.50	003.24	0466.4	02.73	02.43	18.7
	HFET (GPM)	000.13	000.14	0295.4	03.04		29.96

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1798.6	00.6	1551.1	0100	00.6
LOW	2664.6	03.7	0250.5	0160	03.5
IDLE	7828.4	06.9	0056.4	0290	06.4
HI	0758.2	00.0	1548.7	0050	00.2
LOW	0363.5	00.0	0796.4	0080	00.0
IDLE	1379.4	00.0	0097.6	0080	00.0
HI	0335.9	00.0	1684.5	0040	00.0
LOW	0235.0	00.0	0845.0	0030	00.0
IDLE	1247.8	00.0	0080.6	0170	00.0

EPA NO. 72000

APPENDIX B

EPA NO.: 72001 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 225-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	150	75	260	F	45	200	520	P	40	85	40	P
DEQ CO (%)	3.3	1.0	3.2	F	0.0	0.0	0.0	P	0.1	2.4	0.0	P
DEQ RPM	800	-	800	P	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	25 Minutes				20 Minutes				10 Minutes			
HTS HC (ppm)	120	70	100	-	200	50	80	-	60	160	90	-
HTS CO (%)	0.2	0.4	0.2	-	0.0	0.0	0.0	-	0.0	0.3	0.0	-
HTS NOX (ppm)	100	180	110	-	40	350	80	-	80	220	120	-
HTS RPM	770	-	820	-	670	-	790	-	840	-	940	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	38	70	30.01		30	45	29.90		58	55	30.20	
HTS	72	31	30.02		74	26	30.06		72	38	30.14	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	780	(750)	810	780	
DWELL	N/A		N/A	N/A	
TIMING	+13	(+12)	+13	+12	
MECH ADVANCE	19	(19)	20	20	
TOTAL ADVANCE	39	(36)	39	40	
PROPANE IDLE CK	80		250	160	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	OK		MISSING	MISSING	
PROBLEM AREAS:	None		None	Total Adv. @ 2500 Spk Plg Frng Volt. Air Filters	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Spark Plugs Adjusted Carburetor Replaced Engine Oil	None
PERFORMED BY:	Auto Dealer	
COST:	$25.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	018.12	236.60	1601.8	13.06	11.27	
DATE: 1-24-79	CS (grams)	013.63	125.63	1658.3	16.94	14.62	
	HT (grams)	011.48	088.91	1452.2	12.63	10.90	
ODOM: 22711	COMP (GPM)	003.73	037.07	0423.3	03.97	03.42	18.0
	HFET (GPM)	001.65	013.43	0345.0	02.61		23.88
MAINT RETEST	FTP CT (grams)	010.88	182.39	1806.1	10.03	08.20	
DATE: 2-02-79	CS (grams)	002.56	015.24	1948.1	08.72	07.13	
	HT (grams)	004.78	037.20	1685.0	08.13	06.61	
ODOM: 22850	COMP (GPM)	001.33	015.32	0491.4	02.36	01.92	17.1
	HFET (GPM)	000.87	006.08	0379.1	02.13		22.66
RETEST	FTP CT (grams)	010.20	173.32	1762.8	08.59	07.69	
DATE: 5-03-79	CS (grams)	004.09	029.99	1994.0	08.47	07.63	
	HT (grams)	007.95	061.67	1615.9	06.97	06.29	
ODOM: 24609	COMP (GPM)	001.73	018.62	0489.7	02.15	01.94	16.9
	HFET (GPM)	001.27	011.03	0358.7	01.91		23.33

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2148.3	00.5	0695.2	0140	00.7
LOW	2720.3	00.6	2397.4	0210	00.8
IDLE	3150.1	01.7	0136.5	0220	01.8
HI	1833.2	00.3	0547.2	0100	00.4
LOW	1068.4	00.1	2039.3	0090	00.1
IDLE	0444.4	00.0	0232.0	0050	00.0
HI	2080.1	00.6	0701.8	0150	00.7
LOW	1911.8	00.3	2194.1	0170	00.2
IDLE	0421.6	00.0	0267.5	0060	00.0

EPA NO. 72001

APPENDIX B

EPA NO.: 72002 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1230	520	1305	F	130	80	145	P	105	95	130	P
DEQ CO (%)	6.9	2.0	7.0	F	0.0	0.0	0.0	P	0.0	1.9	0.0	P
DEQ RPM	650	-	650	P	800	-	800	P	850	-	850	P
DEQ QUEUE TIME	20 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	1140	310	1090	-	170	50	90	-	240	150	170	-
HTS CO (%)	6.2	0.7	5.8	-	0.0	0.0	0.0	-	0.0	1.7	0.0	-
HTS NOX (ppm)	110	1000	120	-	150	840	160	-	130	430	150	-
HTS RPM	550	-	560	-	840	-	770	-	880	-	800	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	39	77	29.90		46	67	29.95		63	47	30.11	
HTS	60	36	29.87		78	39	30.09		82	30	30.06	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	610	(655)	570	570
DWELL	N/A		N/A	N/A
TIMING	+01	(+06)	C0	+04
MECH ADVANCE	16	(22)	15	20
TOTAL ADVANCE	46	(50)	43	47
PROPANE IDLE CK	0		310	290

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Spk Plg Frng Volt. EGR	Idle Speed Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt. Air Filter EGR	Idle Speed Fast Idle Speed Ign. Timing @ Idle Air Filter Spk Plg Frng Volt. EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Adjusted Timing
PERFORMED BY:	Independent Repair Garage	Service Station
COST:	$5.00	$5.00
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	025.60	302.67	1923.5	28.08	23.61	
DATE: 1-25-79	CS (grams)	019.80	177.24	1871.7	22.51	18.80	
	HT (grams)	013.96	119.51	1702.2	30.63	25.75	
ODOM: 34683	COMP (GPM)	005.17	050.07	0489.2	06.94	05.82	15.2
	HFET (GPM)	002.16	020.49	0438.0	08.67		18.59
MAINT RETEST	FTP CT (grams)	012.47	110.67	1977.4	15.56	14.24	
DATE: 2-09-79	CS (grams)	004.30	042.22	2137.8	22.13	20.25	
	HT (grams)	006.78	080.14	1796.3	13.21	12.01	
ODOM: 35263	COMP (GPM)	001.80	018.06	0534.9	04.85	04.43	15.6
	HFET (GPM)	001.64	018.00	0395.3	01.37		20.68
RETEST	FTP CT (grams)	009.64	080.35	1790.3	14.56	13.67	
DATE: 4-26-79	CS (grams)	002.02	014.17	1782.2	13.76	12.57	
	HT (grams)	005.53	049.15	1584.8	14.15	12.83	
ODOM: 38815	COMP (GPM)	001.24	010.23	0460.7	03.75	03.43	18.4
	HFET (GPM)	001.24	016.60	0403.5	01.38		20.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2656.0	00.9	2397.4	0200	01.0
LOW	0848.2	00.0	2397.4	0100	00.0
IDLE	9482.1	05.9	0069.7	0770	05.8
HI	1829.2	00.7	0415.5	0180	00.8
LOW	0397.1	00.1	1963.6	0075	00.1
IDLE	0186.0	00.0	0699.4	0050	00.0
HI	1331.5	00.7	0411.1	0060	00.6
LOW	0251.7	00.0	1561.8	0000	00.0
IDLE	0166.0	00.0	0559.1	0000	00.0

EPA NO. 72002

APPENDIX .B

EPA NO.: 72003 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-FI TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	200	155	195	P	135	85	140	P				
DEQ CO (%)	3.5	1.5	3.3	F	1.5	0.3	1.5	P				
DEQ RPM	1150	-	1150	P	850	-	850	P	No Retest - Vehicle			
DEQ QUEUE TIME	10 Minutes				10 Minutes				Dropped from Program			
HTS HC (ppm)	140	80	160	-	160	80	190	-				
HTS CO (%)	1.8	0.6	2.5	-	1.2	0.3	1.4	-				
HTS NOX (ppm)	110	180	110	-	100	180	100	-				
HTS RPM	1190	-	1130	-	830	-	870	-				
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	38	64	29.85		45	82	30.05					
HTS	71	41	30.25		63	60	29.97					
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	1040		(925)		820							
DWELL	35		(47)		53							
TIMING	+05		(-03)		-03							
MECH ADVANCE	25		(16)		16							
TOTAL ADVANCE	27		(22)		31							
PROPANE IDLE CK	80				100							
DRIVEABILITY												
ENG STARTING	GOOD				GOOD							
TRANSMISSION	OK				OK							
CLUTCH	OK				OK							
BRAKES	OK				OK							
OVERALL PERF	OK				OK							
IDLE LIMITER CAPS:	FI				FI							
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Spk Plg Frng Volt. Dwell Mech. Adv. @ 2500 Total Adv. @ 2500				Idle Speed Total Adv. @ 2500 Dwell							

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Points & Condenser Replaced Air Filter & Engine Oil Replaced Dist. Cap & Rotor Adjusted Carburetor, Timing Adjusted Idle Speed	
PERFORMED BY:	Owner	
COST:	$26.00	

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.07	076.18	1073.2	10.91	08.77	
DATE: 1-30-79	CS (grams)	007.45	075.98	1251.6	06.81	05.48	
	HT (grams)	006.71	078.37	0925.0	09.57	07.65	
ODOM: 52054	COMP (GPM)	001.97	020.45	0298.7	02.26	01.81	26.3
	HFET (GPM)	001.39	035.51	0177.6	01.69		37.29
MAINT RETEST	FTP CT (grams)	010.35	067.70	1219.6	11.60	09.98	
DATE: 2-26-79	CS (grams)	008.61	038.75	1526.0	10.12	08.76	
	HT (grams)	006.66	035.13	1044.8	10.46	09.06	
ODOM: *	COMP (GPM)	002.60	013.60	0408.7	03.37	02.91	20.2
	HFET (GPM)	001.02	006.08	0223.4	02.94		37.54
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2359.3	01.0	1717.0	0110	01.0
LOW	2616.3	01.8	0902.9	0160	01.8
IDLE	4020.4	03.9	0081.6	0280	04.8
HI	1973.9	00.3	1459.2	0100	00.4
LOW	2359.3	00.3	0719.1	0120	00.4
IDLE	3270.2	01.6	0074.5	0160	01.4
HI					
LOW					
IDLE					

* No Change to Odometer

EPA NO. 72003

APPENDIX B

EPA NO.: 72004 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1220	245	1535	F	50	35	65	P	55	70	55	P
DEQ CO (%)	8.5	0.8	9.0	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	700	P	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	20 Minutes				15 Minutes				10 Minutes			
HTS HC (ppm)	650	60	590	-	130	90	90	-	190	60	130	-
HTS CO (%)	3.1	0.0	3.9	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	200	110	-	40	190	60	-	60	140	70	-
HTS RPM	800	-	830	-	550	-	590	-	540	-	590	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	31	43	29.86		46	67	29.95		60	60	30.40	
HTS	88	17	30.14		74	39	30.18		72	45	30.17	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	510	(500)	540	530
DWELL	N/A		N/A	N/A
TIMING	+19	(+20)	+18	+18
MECH ADVANCE	30	(29)	30	30
TOTAL ADVANCE	52	(53)	53	52
PROPANE IDLE CK	0		160	170
DRIVEABILITY				
ENG STARTING	HARD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	STRETCHY		OK	OK
IDLE LIMITER CAPS:	OK		MISSING	MISSING
PROBLEM AREAS:	Spk Plg Frng Volt. Cyl. Power Dist.		Air Filter	Air Filter

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Independent Repair Garage	
COST:	Unknown	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Rough Idle, Poor Acceleration
OWNER SATISFIED WITH VEH:	Yes	Most of the Time

APPENDIX B

EPA NO.: 72004 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

	HTS MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	40	15	45	P	55	40	60	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	1000	-	1000	P
DEQ QUEUE TIME	3 Minutes				20 Minutes			
HTS HC (ppm)	100	60	90	-	100	40	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	170	120	-	100	170	110	-
HTS RPM	810	-	820	-	870	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	71	30.14	70	41	30.25
HTS	74	50	30.06	82	36	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(500)	580
DWELL	N/A		N/A
TIMING	+19	(+20)	+18
MECH ADVANCE	29	(29)	30
TOTAL ADVANCE	50	(53)	57
PROPANE IDLE CK	210		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed Idle Speed

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
	Adjusted Choke	
	Adjusted Idle Speed	

PERFORMED BY: HTS
COST: None
MANHOURS: 1 Hour
OWNER'S DRIVEABILITY EVAL: N/A No Major Problems
OWNER SATISFIED WITH VEH: N/A Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.14	152.15	2125.0	08.40	06.64	
DATE: 1-31-79	CS (grams)	049.78	477.31	1775.9	03.27	02.61	
	HT (grams)	017.42	178.40	1702.0	06.06	04.83	
ODOM: 19533	COMP (GPM)	008.89	085.92	0488.0	01.38	01.09	13.6
	HFET (GPM)	000.99	009.22	0373.9	01.37		22.65
MAINT RETEST	FTP CT (grams)	024.76	036.80	2359.4	09.72	08.76	
DATE: 2-08-79	CS (grams)	002.10	002.28	2403.4	10.46	09.62	
	HT (grams)	005.69	017.60	2010.5	07.53	06.92	
ODOM: 19628	COMP (GPM)	002.13	003.75	0608.5	02.52	02.31	14.3
	HFET (GPM)	000.24	000.90	0429.0	01.58		20.57
RETEST	FTP CT (grams)	010.41	094.47	2068.6	06.47	05.59	
DATE: 4-26-79	CS (grams)	020.43	301.34	1926.3	03.31	02.91	
	HT (grams)	009.12	095.57	1782.1	05.16	04.51	
ODOM: 21013	COMP (GPM)	004.01	052.86	0510.9	01.20	01.05	14.6
	HFET (GPM)	000.51	005.41	0386.2	01.32		22.38
HTS MAINT RETEST	FTP CT (grams)	007.42	055.49	2141.1	06.03	05.52	
DATE: 4-27-79	CS (grams)	000.94	004.07	2301.8	04.61	04.22	
	HT (grams)	001.75	019.28	1846.5	05.21	04.81	
ODOM: 21071	COMP (GPM)	000.68	005.19	0570.0	01.36	01.24	15.3
	HFET (GPM)	000.08	000.70	0398.1	01.37		22.20
RETEST	FTP CT (grams)	006.27	047.13	2122.8	05.33	05.42	
DATE: 5-25-79	CS (grams)	001.02	004.70	2350.4	04.21	04.28	
	HT (grams)	003.47	022.82	1891.0	04.72	04.88	
ODOM: 21506	COMP (GPM)	000.76	005.06	0578.8	01.23	01.25	15.1
	HFET (GPM)	000.10	001.70	0410.3	01.37		21.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0413.8	00.0	0673.7	0050	00.1
LOW	2481.7	00.6	0363.3	0220	00.7
IDLE	9992.3	09.7	0017.2	0820	09.2
HI	1105.1	00.0	0372.9	0160	00.0
LOW	0312.8	00.0	0403.9	0040	00.0
IDLE	0144.6	00.0	0193.8	0020	00.0
HI	0433.9	00.1	0616.9	0040	00.0
LOW	0580.7	00.1	0312.4	0060	00.2
IDLE	4987.4	02.7	0117.0	0300	02.8
HI	0196.6	00.0	0432.6	0020	00.0
LOW	0095.7	00.0	0220.1	0010	00.0
IDLE	0065.1	00.0	1007.9	0010	00.0
HI	0320.6	00.0	0544.1	0040	00.1
LOW	0207.4	00.0	0354.8	0030	00.0
IDLE	0149.3	00.0	0403.3	0020	00.0

EPA NO. 72004

APPENDIX B

EPA NO.: 72005 MAKE/MODEL: PLYMOUTH/VOLARE WGN ENG: 225-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	190	130	180	P	35	130	35	P	290	135	365	F
DEQ CO (%)	3.1	1.2	3.4	F	0.0	1.0	0.0	P	9.1	3.7	9.0	F
DEQ RPM	900	-	900	P	950	-	950	P	650	-	650	P
DEQ QUEUE TIME	20 Minutes				2 Minutes				10 Minutes			
HTS HC (ppm)	200	140	270	-	40	100	50	-	300	210	300	-
HTS CO (%)	1.1	1.1	1.6	-	0.0	1.4	0.0	-	8.2	5.1	7.6	-
HTS NOX (ppm)	120	160	100	-	150	170	140	-	120	140	130	-
HTS RPM	840	-	830	-	1040	-	900	-	1070	-	1070	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	32	42	29.85		45	68	29.70		57	52	30.00	
HTS	80	29	30.10		57	77	29.61		71	41	29.92	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	680		(755)		900				710			
DWELL	N/A				N/A				N/A			
TIMING	+13		(+12)		00				00			
MECH ADVANCE	20		(18)		05				05			
TOTAL ADVANCE	38		(35)		28				26			
PROPANE IDLE CK	30				270				0			
DRIVEABILITY												
ENG STARTING	GOOD				FALSE				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	OK				OK				OK			
OVERALL PERF	OK				SURGES				OK			
IDLE LIMITER CAPS:	MISSING				MISSING				MISSING			
PROBLEM AREAS:	None				Idle Speed Ign. Timing @ Idle Total Adv. @ 2500				Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Air Filter Replaced Engine Oil Replaced Oil Filter
PERFORMED BY:	Service Station	Service Station
COST:	$9.00	$20.00
OWNER'S DRIVEABILITY EVAL:	Poor Acceleration	Stalling
OWNER SATISFIED WITH VEH:	Yes	Most of the Time

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.22	327.03	1760.1	08.73	06.99	
DATE: 2-02-79	CS (grams)	010.99	151.85	1872.0	03.67	02.92	
	HT (grams)	012.19	171.57	1622.8	04.98	03.99	
ODOM: 17577	COMP (GPM)	003.32	052.04	0473.9	01.37	01.09	15.7
	HFET (GPM)	002.26	040.93	0354.9	01.46		20.80
MAINT RETEST	FTP CT (grams)	018.77	469.32	2152.0	05.09	04.34	
DATE: 2-26-79	CS (grams)	008.33	269.28	2359.0	02.46	02.11	
	HT (grams)	013.22	331.22	1900.6	02.98	02.54	
ODOM: 18105	COMP (GPM)	003.19	087.98	0582.4	00.35	00.72	12.1
	HFET (GPM)	002.15	064.52	0402.2	00.66		17.38
RETEST	FTP CT (grams)	021.78	503.21	2015.2	05.86	05.01	
DATE: 5-09-79	CS (grams)	019.58	529.07	2019.7	02.10	01.80	
	HT (grams)	019.00	433.69	1839.2	03.29	02.79	
ODOM: 19737	COMP (GPM)	005.30	132.35	0524.6	00.87	00.74	11.8
	HFET (GPM)	002.71	077.50	0408.5	00.60		16.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2860.0	02.4	0494.6	0180	02.3
LOW	2850.0	00.8	0953.0	0210	00.9
IDLE	3420.2	02.2	0129.4	0220	02.2
HI	2366.5	04.1	0013.8	0090	04.2
LOW	2926.7	01.4	0548.9	0200	01.4
IDLE	0355.8	00.0	0243.2	0020	00.0
HI	2465.7	04.6	0138.9	0100	04.4
LOW	3566.9	02.2	0189.8	0250	02.3
IDLE	5557.6	07.5	0066.1	0360	07.3

EPA NO. 72005

APPENDIX B

EPA NO.: 72006 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1055	770	1230	F	60	70	80	P	585	330	660	F
DEQ CO (%)	9.2	2.0	9.2	F	0.0	0.0	0.0	P	5.4	1.8	5.0	F
DEQ RPM	950	-	950	P	800	-	800	P	1200	-	1200	F
DEQ QUEUE TIME	60 Minutes				20 Minutes				10 Minutes			
HTS HC (ppm)	1140	690	1250	-	120	50	50	-	730	230	670	-
HTS CO (%)	7.5	1.0	8.2	-	0.0	0.0	0.0	-	4.7	0.2	4.7	-
HTS NOX (ppm)	120	360	120	-	70	110	150	-	160	200	160	-
HTS RPM	1000	-	1000	-	1040	-	1020	-	1160	-	1170	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	34	39	29.85	46	77	29.95	60	72	30.15
HTS	70	22	30.00	63	60	29.86	78	46	30.17

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	570	(650)	640	650	
DWELL	N/A		N/A	N/A	
TIMING	+13	(+02)	-10	+01	
MECH ADVANCE	29	(18)	02	18	
TOTAL ADVANCE	57	(46)	28	46	
PROPANE IDLE CK	0		140	0	

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- EGR

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

Fast Idle Speed
Ign. Timing @ Idle
EGR

MAINTENANCE

MAINT TO PASS DEQ
- Repaired Carburetor
- Adjusted Choke
- Adjusted Idle Speed
- Adjusted Timing

MAINT PRIOR TO RETEST
None

PERFORMED BY: Auto Dealer
COST: $39.00

OWNER'S DRIVEABILITY EVAL: Stumbling — No Major Problems
OWNER SATISFIED WITH VEH: No — Yes

APPENDIX B

EPA NO.: 72006 MAKE/MODEL : FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	55	85	70	P	435	230	440	F
DEQ CO (%)	0.0	0.1	0.0	P	0.9	2.1	1.2	P
DEQ RPM	900	-	950	P	950	-	950	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	120	60	70	-	520	200	630	-
HTS CO (%)	0.0	0.0	0.0	-	0.2	1.8	0.8	-
HTS NOX (ppm)	140	190	80	-	110	210	120	-
HTS RPM	900	-	910	-	890	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	56	30.10	68	48	30.15
HTS	66	48	30.13	84	29	30.02

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(655)	580
DWELL	N/A		N/A
TIMING	+03	(+02)	+03
MECH ADVANCE	17	(18)	17
TOTAL ADVANCE	44	(46)	43
PROPANE IDLE CK	90		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Fast Idle Speed
Spk Plg Frng Volt.
EGR Func. Check

Idle Speed
Fast Idle Speed
EGR

MAINTENANCE

MAINT PRIOR TO RETEST
Adjusted Carburetor
Adjusted Choke
Adjusted Idle Speed
Adjusted Timing

MAINT PRIOR TO RETEST
None

PERFORMED BY: HTS
COST: None
MANHOURS: 1 Hour
OWNER'S DRIVEABILITY EVAL: N/A
OWNER SATISFIED WITH VEH: N/A

No Major Problems
Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	027.40	344.80	1569.2	08.60	06.90	
	CS (grams)	036.89	630.40	1361.8	03.71	03.00	
DATE: 2-01-79	HT (grams)	023.04	306.10	1383.3	07.81	06.31	
ODOM: 7443	COMP (GPM)	008.24	127.09	0376.7	01.58	01.28	14.7
	HFET (GPM)	002.73	026.75	0382.1	02.66		20.49
MAINT RETEST	FTP CT (grams)	020.64	257.90	2208.1	04.35	03.91	
	CS (grams)	010.50	098.46	2211.5	01.60	01.45	
DATE: 2-12-79	HT (grams)	009.41	113.50	1932.6	02.16	01.95	
ODOM: 7538	COMP (GPM)	003.30	036.54	0568.3	00.63	00.57	13.9
	HFET (GPM)	001.26	015.14	0443.5	00.66		18.82
RETEST	FTP CT (grams)	018.72	248.42	1847.9	08.81	08.11	
	CS (grams)	024.90	399.42	1858.1	05.08	04.68	
DATE: 4-28-79	HT (grams)	016.18	203.61	1676.0	07.17	06.72	
ODOM: 8496	COMP (GPM)	005.62	082.97	0481.1	01.73	01.60	14.1
	HFET (GPM)	001.93	021.12	0401.2	01.80		20.13
HTS MAINT RETEST	FTP CT (grams)	013.66	141.12	2006.5	08.89	08.20	
	CS (grams)	010.91	083.91	2002.8	04.02	03.71	
DATE: 4-28-79	HT (grams)	006.85	058.64	1771.9	06.05	05.54	
ODOM: 8573	COMP (GPM)	002.76	023.74	0516.7	01.50	01.39	15.8
	HFET (GPM)	000.61	008.70	0428.7	01.39		19.96
RETEST	FTP CT (grams)	013.49	120.78	1951.7	10.49	08.98	
	CS (grams)	010.42	084.45	2040.3	04.30	03.68	
DATE: 5-25-79	HT (grams)	007.66	061.99	1780.9	07.15	06.12	
ODOM: 8743	COMP (GPM)	002.75	022.90	0519.3	01.72	01.47	15.7
	HFET (GPM)	000.61	009.05	0421.5	01.44		20.26

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	3420.2	01.2	1115.4	0270	01.4
LOW	5390.8	02.7	0494.6	0450	02.7
IDLE	9992.3	10.6	0033.9	0820	09.8
HI	2389.2	00.8	0296.6	0180	00.8
LOW	0611.3	00.2	0041.8	0080	00.2
IDLE	1896.5	00.6	0121.9	0200	00.6
HI	2257.6	01.0	0670.3	0180	01.1
LOW	1287.6	01.9	0374.2	0340	02.1
IDLE	6918.1	06.5	0129.2	0530	06.3
HI	1233.6	00.6	0499.4	0130	00.6
LOW	0184.4	00.1	0110.3	0020	00.0
IDLE	1833.2	00.2	0055.4	0280	00.2
HI	1120.4	00.5	0542.4	0100	00.5
LOW	0398.5	00.1	0160.4	0030	00.1
IDLE	3800.3	00.9	0220.1	0330	01.0

APPENDIX B

EPA NO.: 72007 MAKE/MODEL: FORD/MAVERICK ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	285	270	325	F	90	315	110	P	290	235	350	F
DEQ CO (%)	1.9	4.6	2.1	F	0.0	4.5	0.1	P	1.6	5.7	1.6	F
DEQ RPM	900	-	900	P	800	-	800	P	875	-	900	P
DEQ QUEUE TIME	20 Minutes				65 Minutes				0 Minutes			
HTS HC (ppm)	310	300	380	-	940	540	520	-	90	300	100	-
HTS CO (%)	1.0	4.8	1.2	-	0.2	4.9	0.0	-	0.0	6.9	0.0	-
HTS NOX (ppm)	120	420	120	-	160	460	140	-	110	240	100	-
HTS RPM	800	-	860	-	630	-	660	-	820	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	34	39	29.85		43	64	29.65		59	55	30.20	
HTS	70	25	29.98		70	36	29.54		70	44	30.02	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	590	(600)	660	560	
DWELL	N/A		N/A	N/A	
TIMING	+07	(+08)	+08	+08	
MECH ADVANCE	16	(16)	16	15	
TOTAL ADVANCE	28	(27)	31	32	
PROPANE IDLE CK	50		170	80	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	EGR		EGR	Fast Idle Speed EGR	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Engine Oil
	Adjusted Choke	Replaced Oil Filter
	Adjusted Idle Speed	
	Repaired PCV System	
PERFORMED BY:	Owner	Independent Repair Garage
COST:	None	$6.00
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.00	426.14	1312.1	08.86	07.07	
DATE: 2-01-79	CS (grams)	018.23	318.88	1304.0	05.58	04.45	
	HT (grams)	014.40	313.63	1164.3	07.51	05.99	
ODOM: 12220	COMP (GPM)	004.67	090.79	0337.6	01.82	01.45	17.9
	HFET (GPM)	002.85	087.11	0281.1	02.37		20.77
MAINT RETEST	FTP CT (grams)	019.72	430.75	1639.8	11.99	10.43	
DATE: 2-22-79	CS (grams)	015.07	329.26	1678.3	04.87	04.24	
	HT (grams)	013.42	324.26	1454.3	08.93	07.78	
ODOM: 12602	COMP (GPM)	004.16	093.24	0428.3	02.02	01.75	15.1
	HFET (GPM)	002.96	084.41	0342.4	03.42		18.31
RETEST	FTP CT (grams)	020.46	450.67	1591.4	11.58	10.53	
DATE: 5-03-79	CS (grams)	018.16	387.15	1603.5	06.38	05.81	
	HT (grams)	014.23	353.90	1410.1	08.53	07.70	
ODOM: 14461	COMP (GPM)	004.68	104.35	0412.2	02.16	01.96	15.0
	HFET (GPM)	002.88	086.29	0324.7	03.00		18.89

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	3630.3	04.9	0941.1	0230	04.8
LOW	4870.7	06.1	0604.5	0260	05.8
IDLE	4960.7	02.6	0244.0	0380	02.8
HI	3260.2	04.1	1234.8	0200	04.0
LOW	4550.6	05.5	0666.5	0320	05.4
IDLE	0589.3	00.0	0532.8	0030	00.0
HI	2980.1	04.3	1058.1	0180	03.8
LOW	4220.5	05.9	0506.6	0300	05.3
IDLE	2279.8	00.6	0155.6	0190	00.6

EPA NO. 72007

APPENDIX B

EPA NO.: 72008 MAKE/MODEL: DODGE/COLT ENG: 98-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	390	150	455	F	90	60	90	P	95	70	95	P
DEQ CO (%)	8.7	1.7	8.8	F	0.4	1.1	0.4	P	0.3	0.9	0.3	P
DEQ RPM	850	-	850	P	1000	-	1000	P	800	-	800	P
DEQ QUEUE TIME	0 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	360	80	240	-	300	60	150	-	350	140	460	-
HTS CO (%)	8.1	0.1	5.6	-	0.2	0.2	0.2	-	0.2	1.6	0.3	-
HTS NOX (ppm)	100	240	120	-	110	200	120	-	70	170	70	-
HTS RPM	890	-	890	-	800	-	930	-	820	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	34	39	29.90		42	68	29.65		66	51	30.00	
HTS	70	25	29.98		60	48	29.58		77	45	29.94	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	790	(855)	770	740	
DWELL	59	(52)	54	58	
TIMING	+03	(+05)	+04	+02	
MECH ADVANCE	09	(14)	12	09	
TOTAL ADVANCE	18	(37)	30	23	
PROPANE IDLE CK	0		190	260	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	STUMBLES	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	

PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Rotor Gap Volt. Cyl. Power Dist. Dwell	Total Adv. @ 2500 Rotor Gap Volt. Cyl. Power Dist.	Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Dwell Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filter Replaced Points & Condenser Adjusted Spark Timing Control Adjusted Carburetor & Timing Adjusted Idle Speed & Dwell	None
PERFORMED BY:	Auto Dealer	
COST:	$77.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.94	132.45	1223.8	16.05	12.77	
DATE: 2-02-79	CS (grams)	007.23	164.81	1410.4	06.35	05.06	
ODOM: 27671	HT (grams)	006.28	094.06	1117.8	16.06	12.76	
	COMP (GPM)	001.95	036.72	0343.2	02.99	02.38	21.8
	HFET (GPM)	000.80	005.68	0247.0	04.79		34.31
MAINT RETEST	FTP CT (grams)	007.08	111.96	1354.9	08.81	07.67	
DATE: 2-22-79	CS (grams)	004.05	065.07	1572.8	04.60	04.03	
ODOM: 28333	HT (grams)	004.82	058.27	1198.3	07.42	06.50	
	COMP (GPM)	001.31	019.52	0378.5	01.68	01.47	21.5
	HFET (GPM)	000.47	006.01	0273.3	02.25		31.20
RETEST	FTP CT (grams)	006.92	082.87	1270.9	16.29	15.46	
DATE: 5-04-79	CS (grams)	005.04	037.85	1488.4	06.93	06.58	
ODOM: 30938	HT (grams)	005.62	032.27	1149.1	14.61	14.15	
	COMP (GPM)	001.50	012.25	0358.7	02.97	02.84	23.2
	HFET (GPM)	000.77	003.92	0245.9	05.21		34.84

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1899.6	00.3	2436.8	0095	00.3
LOW	1624.2	00.6	0699.4	0080	00.7
IDLE	8658.7	08.6	0061.2	0320	08.2
HI	0863.5	00.3	0124.4	0040	00.3
LOW	0741.1	00.5	0446.9	0040	00.5
IDLE	1775.1	00.5	0072.1	0100	00.6
HI	1411.0	00.2	2397.4	0090	00.2
LOW	1352.9	00.3	0695.2	0080	00.3
IDLE	1435.5	00.2	0088.8	0110	00.2

EPA NO. 72008

APPENDIX B

EPA NO.: 72009 MAKE/MODEL: OLDS/98 ENG: 403-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	380	200	400	F	25	20	50	P	230	65	210	P
DEQ CO (%)	1.8	0.1	1.9	F	0.2	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	1150	-	1150	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				13 Minutes				13 Minutes			
HTS HC (ppm)	650	120	430	-	170	20	180	-	200	20	140	-
HTS CO (%)	0.4	0.1	0.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	160	80	-	80	200	80	-	40	230	30	-
HTS RPM	710	-	720	-	730	-	790	-	660	-	630	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	83	30.10		44	63	30.00		60	34	30.35	
HTS	69	55	30.04		72	38	29.96		79	25	30.29	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	530	(555)	580	560	
DWELL	N/A		N/A	N/A	
TIMING	+16	(+19)	+18	+15	
MECH ADVANCE	26	(27)	27	19	
TOTAL ADVANCE	53	(51)	45	44	
PROPANE IDLE CK	60		410	290	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	OK		MISSING	MISSING	
PROBLEM AREAS:	Ign. Timing @ Idle Cyl. Power Dist.		Total Adv. @ 2500 EGR Vacuum Hoses	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. EGR Vacuum Hoses Air Filters	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Replaced Engine Oil & Filter	Replaced Spark Plugs Replaced Engine Oil & Filter Adjusted Carburetor Adjusted Choke & Idle Speed Adjusted Timing
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$38.00	$80.00
OWNER'S DRIVEABILITY EVAL:	Eng. Miss, Stumbling	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.57	077.26	2150.0	08.24	07.14	
DATE: 2-07-79	CS (grams)	006.23	038.81	2178.3	05.28	04.57	
	HT (grams)	004.75	021.92	1851.8	07.37	06.34	
ODOM: 23508	COMP (GPM)	001.68	011.27	0554.4	01.74	01.50	15.4
	HFET (GPM)	000.18	000.31	0406.1	01.94		21.78
MAINT RETEST	FTP CT (grams)	004.51	036.44	2218.2	15.29	12.84	
DATE: 3-02-79	CS (grams)	000.99	009.69	2576.9	13.97	11.93	
	HT (grams)	001.51	016.42	2022.6	16.99	14.28	
ODOM: 24240	COMP (GPM)	000.51	004.63	0624.5	04.03	03.41	14.0
	HFET (GPM)	000.06	000.20	0419.9	04.14		21.09
RETEST	FTP CT (grams)	004.42	030.93	2016.3	21.97	19.46	
DATE: 5-11-79	CS (grams)	001.45	000.60	2197.6	15.21	13.47	
	HT (grams)	001.47	003.29	1782.9	23.48	20.80	
ODOM: 25532	COMP (GPM)	000.56	002.10	0544.1	05.07	04.49	16.1
	HFET (GPM)	000.10	000.05	0379.0	05.28		23.37

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0248.6	00.0	0602.1	0040	00.0
LOW	0242.5	00.0	0501.8	0060	00.0
IDLE	1833.2	00.6	0124.6	0200	00.8
HI	0077.3	00.0	1335.0	0020	00.0
LOW	0065.1	00.0	0785.9	0020	00.0
IDLE	0055.9	00.0	0134.1	0010	00.0
HI	0111.0	00.0	2070.4	0030	00.0
LOW	0098.7	00.0	1163.1	0030	00.0
IDLE	0144.6	00.0	0153.2	0030	00.0

EPA NO. 72009

APPENDIX B

EPA NO.: 72010 MAKE/MODEL: CHEV/CHEVETTE ENG: 98-1V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	175	60	175	F	15	15	10	P	35	25	30	P
DEQ CO (%)	2.7	0.0	2.6	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1100	-	1100	F	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	20 Minutes				10 Minutes				10 Minutes			
HTS HC (ppm)	270	50	200	-	30	20	70	-	50	20	40	-
HTS CO (%)	3.9	0.0	2.7	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	560	120	-	120	330	130	-	100	280	100	-
HTS RPM	920	-	1030	-	950	-	960	-	1120	-	920	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	77	29.70		42	71	29.75		63	42	30.30	
HTS	75	30	29.94		72	38	29.68		73	42	30.24	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	850	(800)	890	850
DWELL	N/A		N/A	N/A
TIMING	+09	(+08)	+07	+10
MECH ADVANCE	19	(18)	18	21
TOTAL ADVANCE	46	(44)	27	34
PROPANE IDLE CK	0		170	200
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		SHIFTS HARD	OK
CLUTCH	OK		OK	OK
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	None		Idle Speed Fast Idle Speed Total Adv. @ 2500 Spk. Plg Frng Volt.	Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Choke Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$20.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.38	168.72	1068.8	10.74	09.17	
DATE: 2-15-79	CS (grams)	003.57	069.33	1243.5	10.22	08.73	
	HT (grams)	003.93	068.92	0994.6	10.13	08.65	
ODOM: 25237	COMP (GPM)	001.37	024.15	0302.7	02.75	02.35	25.7
	HFET (GPM)	000.53	008.66	0230.8	02.80		36.04
MAINT RETEST	FTP CT (grams)	010.81	158.37	1028.0	09.53	08.27	
DATE: 2-22-79	CS (grams)	001.22	015.90	1267.4	10.47	09.14	
	HT (grams)	001.48	019.85	1161.8	06.13	05.35	
ODOM: 25395	COMP (GPM)	000.90	012.71	0316.2	02.41	02.10	26.2
	HFET (GPM)	000.52	008.89	0224.8	02.69		36.88
RETEST	FTP CT (grams)	008.32	132.84	1059.4	08.40	07.49	
DATE: 5-18-79	CS (grams)	000.87	011.79	1269.5	09.52	08.50	
	HT (grams)	001.79	030.50	0996.7	07.65	06.83	
ODOM: 28735	COMP (GPM)	000.73	011.51	0305.7	02.33	02.08	27.2
	HFET (GPM)	000.17	002.47	0230.2	02.23		37.79

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2586.6	00.8	2101.9	0160	00.6
LOW	0585.9	00.0	2436.8	0040	00.0
IDLE	3406.9	04.1	0129.2	0180	04.0
HI	2401.4	01.4	1956.3	0150	01.5
LOW	0339.0	00.0	2436.8	0050	00.0
IDLE	0219.7	00.3	0092.8	0020	00.3
HI	1048.9	00.4	1337.6	0080	00.5
LOW	0198.2	00.0	1837.4	0030	00.0
IDLE	0130.9	00.0	0194.7	0020	00.0

EPA NO. 72010

APPENDIX B

EPA NO.: 72011 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-1V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	100	65	90	P	60	45	60	P	75	55	70	P
DEQ CO (%)	3.4	1.0	3.3	F	0.9	0.1	0.8	P	1.0	0.4	1.0	P
DEQ RPM	1050	-	1050	P	1000	-	1000	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	80	50	80	-	60	40	50	-	70	60	80	-
HTS CO (%)	2.5	0.9	2.9	-	0.9	0.2	0.9	-	0.6	0.3	0.9	-
HTS NOX (ppm)	140	210	140	-	100	190	90	-	80	190	80	-
HTS RPM	1070	-	1030	-	830	-	860	-	820	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	42	74	29.83		47	69	29.75		68	42	30.00	
HTS	71	58	29.77		60	53	29.80		86	41	29.89	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	1000	(925)	830		820
DWELL	53	(47)	54		54
TIMING	-08	(-03)	-03		-03
MECH ADVANCE	14	(24)	27		29
TOTAL ADVANCE	30	(30)	27		35
PROPANE IDLE CK	80		160		180
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Dwell Ign. Timing @ Idle Mech. Adv. @ 2500		Mech. Adv. @ 2500 Dwell		Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Dwell

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$5.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.00	086.48	1197.7	08.63	07.50	
	CS (grams)	007.87	135.10	1436.5	04.88	04.20	
DATE: 2-20-79	HT (grams)	006.55	108.00	1054.1	07.35	06.35	
ODOM: 21667	COMP (GPM)	001.95	031.18	0340.3	01.70	01.47	22.4
	HFET (GPM)	001.31	018.07	0219.6	02.20		35.17
MAINT RETEST	FTP CT (grams)	005.47	047.14	1252.8	08.21	07.07	
	CS (grams)	005.32	048.48	1502.2	04.87	04.22	
DATE: 2-26-79	HT (grams)	005.26	044.37	1100.7	08.09	06.96	
ODOM: 21791	COMP (GPM)	001.42	012.54	0355.8	01.73	01.50	23.3
	HFET (GPM)	000.95	007.49	0238.2	02.59		35.06
RETEST	FTP CT (grams)	005.74	035.64	1157.3	07.38	06.58	
	CS (grams)	005.48	029.37	1426.8	04.39	03.91	
DATE: 5-16-79	HT (grams)	004.74	019.95	1050.1	07.08	06.31	
ODOM: 23370	COMP (GPM)	001.42	007.47	0336.4	01.55	01.38	25.1
	HFET (GPM)	000.85	003.56	0218.3	02.35		39.14

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2820.0	01.5	1681.2	0140	01.6
LOW	2890.0	01.7	0544.8	0150	01.8
IDLE	3120.1	04.7	0103.1	0120	04.6
HI	2313.4	00.8	1783.9	0100	00.9
LOW	1986.1	00.5	0578.2	0100	00.6
IDLE	2004.5	01.6	0134.1	0080	01.6
HI	2154.4	00.3	1719.4	0080	00.3
LOW	1863.8	00.2	0487.5	0080	00.2
IDLE	1472.2	00.7	0153.2	0050	00.8

EPA NO. 72011

APPENDIX B

EPA NO.: 72012 MAKE/MODEL: CHEV/CHEVETTE ENG: 98-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	25	95	P	25	35	50	P	55	35	65	P
DEQ CO (%)	0.2	0.0	1.2	P	0.1	0.0	0.5	P	0.4	0.0	0.7	P
DEQ RPM	1400	-	1400	F	700	-	800	P	1400	-	1400	F
DEQ QUEUE TIME	25 Minutes				45 Minutes				5 Minutes			
HTS HC (ppm)	20	20	30	-	190	50	140	-	30	30	30	-
HTS CO (%)	0.0	0.0	0.0	-	1.4	0.0	1.3	-	0.1	0.0	0.0	-
HTS NOX (ppm)	180	230	100	-	100	450	80	-	170	560	180	-
HTS RPM	1430	-	1260	-	800	-	890	-	1270	-	1300	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	44	80	30.02	52	57	29.90	64	44	30.25
HTS	64	51	29.99	65	39	29.86	76	38	30.12

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	890	(800)	720		930
DWELL	N/A		N/A		N/A
TIMING	+11	(+08)	+07		+08
MECH ADVANCE	18	(18)	18		23
TOTAL ADVANCE	49	(48)	49		52
PROPANE IDLE CK	70		40		90
DRIVEABILITY					
ENG STARTING	GOOD		HARD, COLD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Spk Plg Frng Volt.		Fast Idle Speed Spk Plg Frng Volt.		Idle Speed Mech. Adv. @ 2500 Spk Plg Frng Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.12	110.37	1294.9	10.49	08.86	
DATE: 2-26-79	CS (grams)	002.15	034.54	1358.1	10.60	08.95	
	HT (grams)	001.79	019.68	1166.9	10.33	08.71	
ODOM: 21346	COMP (GPM)	000.77	012.43	0344.0	02.80	02.36	24.2
	HFET (GPM)	000.11	001.94	0267.3	02.38		32.76
MAINT RETEST	FTP CT (grams)	005.91	099.44	1325.5	10.65	08.81	
DATE: 3-01-79	CS (grams)	002.27	038.18	1351.9	10.72	08.93	
	HT (grams)	002.19	022.59	1151.9	10.06	08.38	
ODOM: 21382	COMP (GPM)	000.81	012.51	0343.8	02.81	02.33	24.2
	HFET (GPM)	000.11	001.92	0265.5	02.64		32.98
RETEST	FTP CT (grams)	004.57	088.42	1241.7	09.43	08.73	
DATE: 5-22-79	CS (grams)	002.03	036.98	1308.8	09.95	09.21	
	HT (grams)	001.76	020.69	1109.0	09.21	08.52	
ODOM: 24156	COMP (GPM)	000.67	011.57	0330.0	02.57	02.38	25.3
	HFET (GPM)	000.14	002.64	0241.4	01.79		36.05

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0446.1	00.1	1301.2	0060	00.0
LOW	0216.6	00.0	2436.8	0030	00.0
IDLE	2294.3	01.5	0333.0	0140	01.5
HI	0798.0	00.1	1206.5	0080	00.1
LOW	0274.7	00.0	2436.8	0040	00.0
IDLE	2126.0	01.3	0369.4	0140	01.2
HI	1802.6	00.9	1418.6	0100	00.8
LOW	0248.6	00.0	2397.4	0020	00.0
IDLE	1573.2	01.3	0217.7	0100	01.2

EPA NO. 72012

APPENDIX B

EPA NO.: 72013 MAKE/MODEL: OLDS/CUTLASS ENG: 231-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	90	70	140	P	30	30	30	P	50	35	30	P
DEQ CO (%)	2.2	0.6	2.3	F	0.0	0.0	0.0	P	0.9	0.0	0.0	P
DEQ RPM	900	-	900	P	800	-	800	P	90(	-	900	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	100	30	100	-	50	30	40	-	30	10	20	-
HTS CO (%)	1.2	0.0	1.4	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	300	120	-	100	580	80	-	100	420	120	-
HTS RPM	850	-	870	-	770	-	790	-	740	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	44	82	30.00		53	39	30.00		69	35	30.30	
HTS	65	56	29.97		67	37	29.96		73	39	30.20	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	620	(600)	610		580
DWELL	N/A		N/A		N/A
TIMING	+11	(+12)	+11		+11
MECH ADVANCE	19	(20)	21		22
TOTAL ADVANCE	46	(28)	29		45
PROPANE IDLE CK	60		90		160
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	OK		OK		OK
PROBLEM AREAS:	Total Adv. @ 2500 EGR - Hose Vacuum Hoses		EGR - Hose Vacuum Hoses		Total Adv. @ 2500 Cyl. Power Dist. EGR - Hoses Vacuum Hoses Air Filters

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$5.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.54	129.05	1824.7	29.20	26.05	
DATE: 2-27-79	CS (grams)	004.65	072.25	1977.4	20.59	18.37	
	HT (grams)	003.72	044.82	1651.8	24.20	21.58	
ODOM: 19481	COMP (GPM)	001.45	020.44	0493.8	06.26	05.58	16.7
	HFET (GPM)	000.41	010.78	0363.8	04.56		23.21
MAINT RETEST	FTP CT (grams)	007.81	121.93	1746.2	22.74	22.21	
DATE: 3-05-79	CS (grams)	001.57	032.22	1911.0	17.45	17.04	
	HT (grams)	001.37	022.86	1560.0	22.97	22.43	
ODOM: 19540	COMP (GPM)	000.76	013.02	0473.5	05.38	05.25	17.9
	HFET (GPM)	000.09	001.04	0356.5	07.97		24.74
RETEST	FTP CT (grams)	006.10	103.49	1810.8	26.41	24.16	
DATE: 5-22-79	CS (grams)	000.69	008.60	2023.5	24.06	22.01	
	HT (grams)	001.06	013.81	1633.8	27.46	25.12	
ODOM: 20148	COMP (GPM)	000.52	008.13	0497.8	06.81	06.23	17.3
	HFET (GPM)	000.06	000.41	0344.9	08.14		25.65

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0163.0	00.0	2397.4	0020	00.0
LOW	0190.5	00.1	0984.1	0030	00.1
IDLE	1720.0	00.9	0181.9	0110	01.0
HI	0129.3	00.0	2397.4	0030	00.0
LOW	0098.7	00.0	2397.4	0040	00.0
IDLE	0052.8	00.0	0153.2	0020	00.0
HI	0198.2	00.0	2436.8	0020	00.0
LOW	0127.9	00.0	2436.8	0020	00.0
IDLE	0082.0	00.0	0311.1	0010	00.0

EPA NO. 72013

EPA NO.: 72014 MAKE/MODEL: CHEV/IMPALA ENG: 350-4V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	170	65	160	P	130	120	195	P	215	100	215	P
DEQ CO (%)	2.0	0.0	1.8	F	0.1	0.3	0.1	P	3.4	0.1	2.4	F
DEQ RPM	700	-	700	P	675	-	675	P	750	-	750	P
DEQ QUEUE TIME	20 Minutes				20 Minutes				0 Minutes			
HTS HC (ppm)	220	70	210	-	230	50	120	-	320	80	290	-
HTS CO (%)	2.3	0.0	3.0	-	0.1	0.0	0.0	-	4.0	0.4	3.6	-
HTS NOX (ppm)	110	140	120	-	80	140	80	-	120	180	120	-
HTS RPM	740	-	750	-	690	-	670	-	710	-	720	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	45	67	30.00		64	23	30.05		77	33	29.95	
HTS	75	40	30.06		77	29	29.97		93	31	29.92	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	490	(500)	480		510
DWELL	N/A		N/A		N/A
TIMING	+08	(+08)	+09		+11
MECH ADVANCE	23	(23)	23		25
TOTAL ADVANCE	40	(41)	44		44
PROPANE IDLE CK	0		100		0
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	None		Total Adv. @ 2500		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Service Station	
COST:	$6.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.72	103.26	2211.1	09.11	07.71	
DATE: 2-28-79	CS (grams)	004.21	085.06	2376.1	04.85	04.13	
ODOM: 22794	HT (grams)	003.00	035.93	1954.7	07.85	06.58	
	COMP (GPM)	001.12	019.99	0592.1	01.77	01.49	14.1
	HFET (GPM)	000.13	000.82	0447.5	02.09		19.74
MAINT RETEST	FTP CT (grams)	003.84	034.70	2274.4	08.19	07.41	
DATE: 3-15-79	CS (grams)	000.47	001.43	2395.0	03.99	03.62	
ODOM: 23811	HT (grams)	001.09	005.29	1970.1	06.46	05.86	
	COMP (GPM)	000.37	002.58	0599.5	01.49	01.35	14.7
	HFET (GPM)	000.03	000.05	0442.1	01.56		20.05
RETEST	FTP CT (grams)	004.89	055.34	2182.3	11.20	09.38	
DATE: 5-29-79	CS (grams)	002.70	034.20	2339.5	05.19	04.35	
ODOM: 24749	HT (grams)	002.22	012.47	1905.3	08.47	07.14	
	COMP (GPM)	000.81	008.68	0581.8	01.98	01.66	14.8
	HFET (GPM)	000.06	000.32	0423.6	02.34		20.90

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0332.9	00.0	0660.6	0040	00.0
LOW	0204.4	00.0	0274.7	0040	00.0
IDLE	3001.2	02.4	0075.8	0180	02.3
HI	0037.5	00.0	0446.9	0250	00.0
LOW	0052.8	00.0	0196.2	0025	00.0
IDLE	0049.8	00.0	0119.8	0030	00.0
HI	0198.2	00.0	0718.8	0020	00.0
LOW	0158.5	00.0	0235.9	0020	00.0
IDLE	1468.1	00.6	0112.2	0120	00.7

EPA NO. 72014

APPENDIX B

EPA NO.: 72015 MAKE/MODEL: CHEV/CAMARO ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	475	370	550	F	115	180	200	P	15	75	25	P
DEQ CO (%)	5.6	6.4	5.5	F	0.1	3.3	0.1	P	0.0	2.5	0.0	P
DEQ RPM	900	-	900	P	1050	-	1050	P	1100	-	1050	P
DEQ QUEUE TIME	40 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	710	230	610	-	420	220	340	-	80	100	60	-
HTS CO (%)	6.3	3.9	5.7	-	0.3	3.0	0.6	-	0.0	1.0	0.0	-
HTS NOX (ppm)	100	140	100	-	110	180	100	-	100	120	100	-
HTS RPM	810	-	830	-	920	-	1010	-	980	-	970	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	50	54	29.90		60	39	29.85		65	42	30.20	
HTS	65	44	29.83		75	31	29.80		69	43	30.16	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	510	(555)	620	610
DWELL	N/A		N/A	N/A
TIMING	+07	(+08)	+07	+09
MECH ADVANCE	18	(20)	19	19
TOTAL ADVANCE	43	(44)	43	45
PROPANE IDLE CK	0		90	170
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		SURGES	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Fast Idle Speed		Fast Idle Speed	None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$9.00	
OWNER'S DRIVEABILITY EVAL:	Stumbles	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.49	346.39	1536.1	08.45	07.19	
DATE: 3-01-79	CS (grams)	022.36	472.81	1363.2	02.11	01.78	
	HT (grams)	012.56	229.73	1311.7	05.80	04.91	
ODOM: 15806	COMP (GPM)	005.11	100.36	0369.5	01.21	01.02	16.3
	HFET (GPM)	001.13	019.69	0333.4	01.91		24.11
MAINT RETEST	FTP CT (grams)	013.16	223.31	1697.2	09.41	07.89	
DATE: 3-22-79	CS (grams)	008.77	110.77	1881.4	02.58	02.16	
	HT (grams)	005.85	080.13	1619.7	07.29	06.11	
ODOM: 16144	COMP (GPM)	002.37	033.66	0471.3	01.44	01.21	16.7
	HFET (GPM)	000.54	008.46	0353.0	02.66		24.09
RETEST	FTP CT (grams)	010.93	195.55	1730.3	09.25	08.28	
DATE: 6-07-79	CS (grams)	004.94	094.34	1861.8	02.23	01.99	
	HT (grams)	003.30	055.41	1607.0	06.73	06.09	
ODOM: 17768	COMP (GPM)	001.54	028.00	0469.6	01.34	01.20	17.1
	HFET (GPM)	000.26	005.25	0337.8	02.43		25.57

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0343.4	00.0	1124.9	0000	00.0
LOW	4310.5	05.6	0110.3	0270	05.4
IDLE	6561.2	07.7	0033.9	0430	07.2
HI	0235.0	00.0	1337.6	0030	00.0
LOW	3496.9	02.8	0223.8	0260	02.8
IDLE	1496.2	00.1	0148.6	0180	00.1
HI	0120.1	00.0	1175.1	0010	00.0
LOW	2353.2	02.7	0201.0	0180	02.6
IDLE	1013.4	00.1	0165.2	0100	00.2

EPA NO. 72015

APPENDIX B

EPA NO.: 72016 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	105	60	105	P	110	75	70	P	60	35	50	P
DEQ CO (%)	2.7	0.1	2.2	F	0.4	0.7	0.0	P	0.4	0.1	0.4	P
DEQ RPM	1050	-	1050	P	650	-	700	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				19 Minutes				5 Minutes			
HTS HC (ppm)	120	80	60	-	300	40	30	-	30	20	20	-
HTS CO (%)	1.0	0.7	0.0	-	0.1	0.0	0.0	-	0.1	0.2	0.0	-
HTS NOX (ppm)	110	190	80	-	80	180	70	-	80	190	80	-
HTS RPM	960	-	1000	-	610	-	660	-	710	-	740	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	53	29.90		50	75	29.50		64	41	30.20	
HTS	78	34	29.86		72	46	29.42		75	34	30.14	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	970	(700)	590		680
DWELL	N/A		N/A		N/A
TIMING	+09	(+08)	+07		+07
MECH ADVANCE	17	(18)	16		15
TOTAL ADVANCE	41	(40)	38		34
PROPANE IDLE CK	110		120		100
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	OK		OK		OK
PROBLEM AREAS:	Idle Speed		Idle Speed Fast Idle Speed		Fast Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Spark Plug Firing Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Replaced Air Filter Adjusted Idle Speed Replaced PCV	None
PERFORMED BY:	Owner	
COST:	$13.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX B

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.44	270.34	2034.1	06.98	05.91	
DATE: 3-02-79	CS (grams)	006.60	112.87	2472.8	04.41	03.70	
ODOM: 12746	HT (grams)	007.53	110.55	1917.7	07.37	06.19	
	COMP (GPM)	002.40	038.95	0592.1	01.55	01.30	13.4
	HFET (GPM)	001.27	019.07	0419.1	02.52		19.57
MAINT RETEST	FTP CT (grams)	008.91	140.27	2072.8	06.68	05.76	
DATE: 3-28-79	CS (grams)	000.70	002.44	2377.5	06.66	05.74	
ODOM: 13020	HT (grams)	002.09	026.44	1937.6	06.91	05.89	
	COMP (GPM)	000.76	010.38	0583.1	01.80	01.54	14.7
	HFET (GPM)	000.16	002.93	0432.3	01.75		20.28
RETEST	FTP CT (grams)	009.80	200.42	2205.0	06.26	05.81	
DATE: 6-20-79	CS (grams)	001.58	029.14	2448.5	06.00	05.56	
ODOM: 13883	HT (grams)	002.14	037.19	1977.6	06.74	06.20	
	COMP (GPM)	000.94	018.20	0603.2	01.67	01.55	14.0
	HFET (GPM)	000.11	001.20	0446.2	02.84		19.78

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2377.7	01.1	1165.5	0120	01.3
LOW	0352.6	00.0	0678.5	0040	00.1
IDLE	1533.4	00.6	0160.4	0110	00.8
HI	0788.8	00.3	0374.2	0020	00.0
LOW	0253.3	00.0	1199.2	0020	00.0
IDLE	0164.6	00.0	0168.0	0030	00.0
HI	0107.9	00.0	0563.9	0000	00.1
LOW	0126.2	00.0	0637.9	0020	00.0
IDLE	0719.7	00.5	0086.4	0070	00.6

EPA NO. 72016

APPENDIX C

TEST RESULTS FOR 2-MONTH RETEST VEHICLES

Legend

Idle Test Results

1st	-	Initial Idle Test	°F	-	Temperature in °F
2500	-	High Idle Test @ 2500 RPM	RH	-	Relative Humidity
2nd	-	Second Idle Test	BARO	-	Barometric Pressure
S	-	Pass/Fail Status	QUEUE TIME	-	Time Waiting in Line Prior to Test

FTP & HFET Results

CT	-	Cold Transient Portion of FTP
CS	-	Cold Stabilized Portion of FTP
HT	-	Hot Transient Portion of FTP
COMP (GPM)	-	Composite results for FTP in grams per mile
NOXC	-	Oxide of Nitrogen Emissions Corrected for Humidity
MPG	-	Miles per gallon calculated by the Carbon Balance Method
ODOM	-	Odometer Reading

FED Three-Mode Test Results

HI	-	52 MPH Test
LOW	-	25 MPH Test
HC-1	-	Total Hydrocarbons in ppm (Using the Laboratory Analyzer)
CO-L	-	Carbon Monoxide in Percent (Using the Laboratory Analyzer)
NOX-L	-	Oxides of Nitrogen in ppm (Using the Laboratory Analyzer)
HC-G	-	Hydrocarbons in ppm Hexane (Using the Garage Analyzer)
CO-G	-	Carbon Monoxide in Percent (Using the Garage Analyzer)

Diagnostic Checks

Idle Speed and Propane Idle Check readings are in RPM

Dwell, Timing, Mech. Advance and Total Advance readings are in degrees of crankshaft rotation from Top Dead Center (+ before, - after)

Common Abbreviations

FI	-	Fuel Injection	N/A	-	Not Applicable
PERF	-	Performance	CK	-	Check
ENG	-	Engine	MECH	-	Mechanical

APPENDIX C

EPA NO.: 51051 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	50	50	P	65	50	65	P
DEQ CO (%)	1.2	0.3	0.5	P	0.4	0.3	0.5	P
DEQ RPM	900	-	900	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				10 Minutes			
HTS HC (ppm)	130	60	100	-	110	60	80	-
HTS CO (%)	0.9	0.2	0.4	-	0.5	0.2	0.3	-
HTS NOX (ppm)	70	260	60	-	60	260	60	-
HTS RPM	700	-	780	-	700	-	770	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	78	30.05	58	55	30.20
HTS	57	71	30.04	68	42	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	690	(700)	680
DWELL	49	(52)	49
TIMING	+18	(+10)	+09
MECH ADVANCE	30	(23)	25
TOTAL ADVANCE	59	(41)	37
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:		
	Fast Idle Speed	Fast Idle Speed
	Ign. Timing @ Idle	Mech. Adv. @ 2500
	Mech. Adv. @ 2500	Dist. Point Volt. Drop
	Total Adv. @ 2500	EGR
	Spk Plg Frng Volt.	Air Filters - Cond.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.38	055.44	1260.3	16.16	15.04		HI	1160.2	00.2	2397.4	0060	00.3
DATE: 3-6-79	CS (grams)	003.59	040.48	1473.3	08.78	08.34		LOW	0955.2	00.1	1062.9	0040	00.1
ODOM: 26885	HT (grams)	004.55	030.68	1073.0	14.45	13.45		IDLE	0753.3	00.2	0072.1	0040	00.2
	COMP (GPM)	001.08	010.91	0350.2	03.19	03.00	23.9						
	HFET (GPM)	000.66	004.65	0222.1	05.24		38.30						
RETEST	FTP CT (grams)	004.15	056.16	1205.8	14.81	14.35		HI	1108.2	00.2	2397.4	0080	00.1
DATE: 5-4-79	CS (grams)	004.01	032.69	1338.4	07.43	07.20		LOW	1255.0	00.0	1855.5	0100	00.0
ODOM: 27944	HT (grams)	005.72	028.67	1066.6	14.16	13.82		IDLE	0692.2	00.2	0072.1	0060	00.1
	COMP (GPM)	001.21	009.76	0328.6	02.92	02.83	25.5						
	HFET (GPM)	000.61	003.32	0220.4	05.03		38.98						

EPA NO. 51051

APPENDIX C

EPA NO.: 51052 MAKE/MODEL: PONTIAC/GRAN SAFARI WGN ENG: 400-4V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	200	95	260	P	50	50	105	P
DEQ CO (%)	0.5	0.4	0.6	P	0.0	1.8	0.1	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	25 Minutes				0 Minutes			
HTS HC (ppm)	290	120	200	-	110	60	90	-
HTS CO (%)	0.4	3.0	0.0	-	0.0	1.7	0.0	-
HTS NOX (ppm)	70	150	80	-	80	190	100	-
HTS RPM	720	-	730	-	750	-	750	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	59	74	30.15		60	52	30.15	
HTS	71	63	30.32		72	42	30.10	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(625)	570
DWELL	N/A		N/A
TIMING	+06	(+16)	+06
MECH ADVANCE	14	(25)	14
TOTAL ADVANCE	39	(50)	39
PROPANE IDLE CK	80		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING
PROBLEM AREAS:	Idle Speed Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500	Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Heat Riser Valve

PERFORMED BY: Auto Dealer
COST: $59.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	010.95	163.76	2608.6	07.12	06.10		HI	1113.2	00.3	0616.9	0080	00.2
DATE: 3-07-79	CS (grams)	005.38	045.13	2636.8	06.16	05.28		LOW	1379.4	00.6	0342.7	0120	00.6
	HT (grams)	008.47	095.83	2244.3	07.94	06.80		IDLE	0648.1	00.1	0083.0	0100	00.0
ODOM: 51148	COMP (GPM)	001.99	022.69	0671.7	01.83	01.57	12.4						
	HFET (GPM)	000.62	007.54	0520.6	02.46		16.59						
RETEST	FTP CT (grams)	009.87	147.14	2752.6	07.07	06.38		HI	0579.0	00.2	0506.6	0040	00.2
DATE: 5-03-79	CS (grams)	005.87	058.54	2599.4	05.66	05.16		LOW	1111.2	00.6	0296.5	0080	00.6
	HT (grams)	005.78	083.24	2290.2	06.93	06.25		IDLE	0334.3	00.0	0067.3	0030	00.0
ODOM: 52168	COMP (GPM)	001.79	022.57	0678.5	01.69	01.53	12.3						
	HFET (GPM)	000.69	011.39	0529.3	02.18		16.14						

EPA NO. 51052

APPENDIX C

EPA NO.: 51053 MAKE/MODEL: PLYMOUTH/FURY ENG: 318-2V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	25	35	P	15	15	15	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				0 Minutes			
HTS HC (ppm)	70	20	40	-	40	30	70	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	160	90	-	90	240	130	-
HTS RPM	730	-	750	-	760	-	1110	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	62	31	30.15		60	36	30.35	
HTS	74	33	30.12		81	29	30.29	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	700	(755)	700	
DWELL	N/A		N/A	
TIMING	+02	(+02)	000	
MECH ADVANCE	26	(20)	19	
TOTAL ADVANCE	22	(42)	42	
PROPANE IDLE CK	120		200	
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	
TRANSMISSION	OK		OK	
CLUTCH	N/A		N/A	
BRAKES	OK		OK	
OVERALL PERF	STUMBLES		OK	
IDLE LIMITER CAPS:	MISSING		MISSING	

PROBLEM AREAS:
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spk Plg Frng Volt.

Ign. Timing @ Idle
Auto. Choke - Movement,Linkage

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	023.73	249.67	2479.2	07.35	06.04	
DATE: 3-13-79	CS (grams)	001.56	016.80	2651.0	06.99	05.74	
ODOM: 53678	HT (grams)	001.21	005.57	2255.2	09.80	08.05	
	COMP (GPM)	001.66	016.98	0667.0	02.10	01.72	12.7
	HFET (GPM)	000.03	000.04	0518.1	01.76		17.11
RETEST	FTP CT (grams)	014.31	207.39	2427.8	07.73	06.81	
DATE: 5-12-79	CS (grams)	000.65	001.30	2598.8	06.55	05.77	
ODOM: 55799	HT (grams)	001.66	007.13	2085.3	11.43	10.06	
	COMP (GPM)	001.03	012.61	0644.2	02.19	01.92	13.3
	HFET (GPM)	000.03	000.03	0500.0	01.57		17.73

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0317.6	00.0	0464.0	0040	00.0
LOW	0219.7	00.0	0660.6	0040	00.0
IDLE	0228.8	00.0	0097.6	0040	00.0
HI	0095.7	00.0	0339.5	0010	00.0
LOW	0095.7	00.0	0630.7	0010	00.0
IDLE	0114.0	00.0	0172.3	0010	00.0

EPA NO. 51053

APPENDIX C

EPA NO.: 51054 MAKE/MODEL: BUICK/LESABRE ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	25	25	P	140	50	160	F
DEQ CO (%)	0.0	0.0	0.0	P	3.2	0.5	2.9	F
DEQ RPM	900	-	900	P	700	-	700	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	30	30	30	-	130	50	130	-
HTS CO (%)	0.0	0.1	0.0	-	1.7	0.2	1.7	-
HTS NOX (ppm)	90	230	130	-	80	220	80	-
HTS RPM	850	-	880	-	720	-	710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	33	30.18	58	57	29.70
HTS	75	34	30.11	72	39	29.62

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(600)	540
DWELL	N/A		N/A
TIMING	+12	(+12)	+14
MECH ADVANCE	19	(19)	18
TOTAL ADVANCE	32	(32)	32
PROPANE IDLE CK	140		20

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR Plugged

Fast Idle Speed
Ign. Timing @ Idle
EGR Plugged

MAINTENANCE MAINT PRIOR TO RETEST

Replaced EGR Valve

PERFORMED BY: Auto Dealer
COST: $46.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

EPA NO.: 51054 MAKE/MODEL : BUICK/LESABRE ENG: 350-4V TRANS: AUTOMATIC

	HTS MAINT				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	60	30	45	P	110	255	115	P
DEQ CO (%)	0.0	0.0	0.0	P	0.6	0.0	0.8	P
DEQ RPM	750	-	750	P	750	-	750	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	60	50	80	-	90	210	130	-
HTS CO (%)	0.3	0.0	0.7	-	0.1	0.0	0.4	-
HTS NOX (ppm)	75	160	80	-	80	200	80	-
HTS RPM	770	-	760	-	720	-	740	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	33	30.30	68	42	30.20
HTS	78	38	30.29	74	43	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	550
DWELL	N/A		N/A
TIMING	+12	(+12)	+14
MECH ADVANCE	18	(19)	19
TOTAL ADVANCE	31	(32)	32
PROPANE IDLE CK	60		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Fast Idle Speed

Fast Idle Speed
Cyl. Power Dist.

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
	Adjusted Idle Speed	
	Adjusted Timing	
	Replaced EGR System	

PERFORMED BY: HTS
COST: $10.00
MANHOURS: 1.5 Hours
OWNER'S DRIVEABILITY EVAL: N/A — No Major Problems
OWNER SATISFIED WITH VEH: N/A — Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.74	085.78	2466.6	21.20	19.21	
DATE: 3-16-79	CS (grams)	004.31	051.75	2589.3	15.41	13.71	
	HT (grams)	003.73	038.41	2128.8	18.44	16.42	
ODOM: 54053	COMP (GPM)	001.24	014.74	0648.5	04.67	04.18	13.1
	HFET (GPM)	000.20	000.88	0475.0	04.80		18.59
RETEST	FTP CT (grams)	009.49	122.19	2351.6	21.42	18.92	
DATE: 5-08-79	CS (grams)	007.54	128.02	2352.5	13.05	11.53	
	HT (grams)	005.28	060.15	2060.0	20.26	17.90	
ODOM: 55236	COMP (GPM)	001.95	028.65	0605.0	04.51	03.98	13.5
	HFET (GPM)	000.23	001.87	0466.6	04.98		18.86
HTS MAINT RETEST	FTP CT (grams)	005.88	069.97	2400.4	10.04	08.78	
DATE: 5-11-79	CS (grams)	006.77	096.41	2760.9	05.83	05.10	
	HT (grams)	002.73	025.28	2125.7	07.54	06.60	
ODOM: 55282	COMP (GPM)	001.45	018.79	0667.3	01.93	01.68	12.6
	HFET (GPM)	000.15	001.46	0480.6	02.35		18.35
RETEST	FTP CT (grams)	007.09	094.31	2509.5	12.41	10.72	
DATE: 6-14-79	CS (grams)	005.91	083.57	2589.9	05.92	05.20	
	HT (grams)	004.56	039.57	2183.8	09.58	08.36	
ODOM: 55670	COMP (GPM)	001.54	019.56	0655.2	02.23	01.94	12.8
	HFET (GPM)	000.26	001.34	0501.5	02.80		17.58

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0325.1	00.1	1411.4	0030	00.1
LOW	0371.0	00.1	0945.9	0040	00.2
IDLE	0239.4	00.0	0193.8	0020	00.1
HI	0325.1	00.0	1640.6	0020	00.0
LOW	1349.9	00.6	1124.9	0080	00.6
IDLE	2087.1	01.5	0115.0	0140	01.6
HI	0236.4	00.0	0637.9	0020	00.0
LOW	1343.7	00.8	0201.0	0100	00.8
IDLE	1258.1	00.9	0064.9	0080	01.0
HI	0253.3	00.0	0774.6	0000	00.0
LOW	1272.3	00.7	0243.2	0100	00.8
IDLE	1792.5	01.2	0126.7	0130	01.4

EPA NO. 51054

EPA NO.: 51055 MAKE/MODEL: PLYMOUTH/FURY ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	30	45	P	40	30	25	P
DEQ CO (%)	0.9	0.0	0.2	P	0.0	0.1	0.0	P
DEQ RPM	800	-	800	P	750	-	775	P
DEQ QUEUE TIME	20 Minutes				10 Minutes			
HTS HC (ppm)	60	60	30	-	20	20	10	-
HTS CO (%)	0.5	0.8	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	460	110	-	90	170	105	-
HTS RPM	750	-	750	-	730	-	740	-

	°F	RH	BARO	°F	RH	BARO
DEQ	64	23	30.05	65	44	30.15
HTS	78	27	29.97	78	39	30.15

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	710	(755)	700	
DWELL	N/A		N/A	
TIMING	+01	(000)	+01	
MECH ADVANCE	18	(16)	17	
TOTAL ADVANCE	35	(38)	41	
PROPANE IDLE CK	80		60	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt. Spark Plug Firing Volt.

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	007.31	135.34	2500.8	13.34	12.25		HI	0147.7	00.0	1370.8	0040	00.0
DATE: 3-15-79		CS (grams)	000.80	004.81	2755.5	06.54	06.05		LOW	0141.5	00.0	1609.6	0040	00.0
		HT (grams)	001.23	007.43	2201.1	13.68	12.76		IDLE	0089.5	00.0	0129.4	0020	00.0
ODOM: 21624		COMP (GPM)	000.62	008.97	0678.1	02.68	02.48	12.8						
	HFET	(GPM)	000.08	000.03	0450.2	03.64		19.68						
RETEST	FTP	CT (grams)	006.30	114.28	2470.5	13.45	11.64		HI	0201.3	00.0	1398.2	0020	00.0
DATE: 5-17-79		CS (grams)	000.58	001.20	2866.1	06.98	06.14		LOW	0158.5	00.0	1458.9	0020	00.0
		HT (grams)	001.35	004.49	2240.5	12.72	11.20		IDLE	0127.9	00.0	0175.3	0010	00.0
ODOM: 22329		COMP (GPM)	000.54	007.05	0694.1	02.67	02.34	12.5						
	HFET	(GPM)	000.07	000.03	0454.3	03.47		19.51						

EPA NO.51055

APPENDIX C

EPA NO.: 51056 MAKE/MODEL: TOYOTA/WAGON ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	75	25	100	P	30	25	55	P
DEQ CO (%)	0.7	0.1	0.6	P	0.7	0.1	0.5	P
DEQ RPM	800	-	800	P	850	-	850	P
DEQ QUEUE TIME	27 Minutes				5 Minutes			
HTS HC (ppm)	70	30	70	-	90	20	80	-
HTS CO (%)	0.8	0.2	0.6	-	0.9	0.2	0.8	-
HTS NOX (ppm)	40	140	50	-	60	130	60	-
HTS RPM	740	-	790	-	750	-	820	-

	°F	RH	BARO	°F	RH	BARO
DEQ	64	23	30.05	65	42	30.18
HTS	82	25	29.98	78	36	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	850	(855)	720
DWELL	61	(52)	63
TIMING	+08	(+08)	-03
MECH ADVANCE	24	(22)	11
TOTAL ADVANCE	40	(42)	13
PROPANE IDLE CK	40		20

DRIVEABILITY		
ENG STARTING	FALSE	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	STUMBLE, STRETCHY	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt.
Dwell

Idle Speed
Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Points & Condenser
Replaced Engine Oil
Replaced Oil Filter
Replaced Fuel Filter
Repaired Radiator

PERFORMED BY: Auto Dealer
COST: $103.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.34	056.77	1802.2	16.45	15.17	
DATE: 3-15-79	CS (grams)	000.47	020.07	2389.5	06.52	06.01	
ODOM: 42565	HT (grams)	001.33	021.16	1594.0	12.96	11.81	
	COMP (GPM)	000.47	007.54	0543.1	02.80	02.57	15.9
	HFET (GPM)	000.24	004.30	0289.5	04.40		29.85
RETEST	FTP CT (grams)	004.80	053.69	1722.2	16.02	14.01	
DATE: 5-17-79	CS (grams)	000.88	022.00	2151.0	06.23	05.45	
ODOM: 44214	HT (grams)	001.81	021.49	1522.3	13.89	12.07	
	COMP (GPM)	000.53	007.64	0501.2	02.80	02.45	17.2
	HFET (GPM)	000.28	003.35	0286.5	04.63		30.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0432.1	00.1	1721.8	0040	00.1
LOW	0927.7	00.9	0652.2	0060	01.0
IDLE	0221.1	00.5	055.4	0020	00.5
HI	0465.8	00.1	1805.4	0020	00.1
LOW	0377.1	00.5	0664.2	0020	00.4
IDLE	0224.1	00.6	0064.9	0020	00.6

APPENDIX C

EPA NO.: 51057 MAKE/MODEL: MERCURY/MONTEGO WGN ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	35	35	45	P				
DEQ CO (%)	0.6	0.3	0.6	P				
DEQ RPM	1010	-	1010	P				
DEQ QUEUE TIME	35 Minutes							
HTS HC (ppm)	30	30	50	-				
HTS CO (%)	0.1	0.1	0.1	-				
HTS NOX (ppm)	90	130	80	-				
HTS RPM	970	-	970	-				

No Retest - Vehicle Dropped from program

	°F	RH	BARO	°F	RH	BARO
DEQ	62	24	30.02			
HTS	77	26	29.90			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	710	(655)
DWELL	N/A	
TIMING	+06	(+08)
MECH ADVANCE	14	(15)
TOTAL ADVANCE	14	(39)
PROPANE IDLE CK	110	

DRIVEABILITY	
ENG STARTING	FALSE
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Total Adv. @ 2500
Spk Plg Frng Volt.
Vacuum Hoses

MAINTENANCE MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.56	050.13	3273.4	12.80	11.50		HI	0296.2	00.1	0534.4	0020	00.1
	CS (grams)	002.84	014.59	3738.4	05.23	04.70		LOW	0186.0	00.0	0158.3	0020	00.1
DATE: 3-14-79	HT (grams)	003.10	021.07	2770.0	10.55	09.48		IDLE	0534.8	00.0	0131.6	0040	00.0
ODOM: 67153	COMP (GPM)	000.88	006.42	0896.6	02.23	02.01	09.8						
	HFET (GPM)	000.33	002.75	0602.9	02.94		14.58						
RETEST	FTP CT (grams)							HI					
	CS (grams)							LOW					
DATE:	HT (grams)							IDLE					
ODOM:	COMP (GPM)												
	HFET (GPM)												

APPENDIX C

EPA NO.: 51058 MAKE/MODEL: VOLKSWAGON/BUG ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	130	60	130	P	155	70	165	P
DEQ CO (%)	2.9	1.1	2.9	P	4.6	1.3	4.2	F
DEQ RPM	950	-	950	P	950	-	1000	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	190	60	170	-	200	90	290	-
HTS CO (%)	3.2	0.3	3.3	-	5.1	1.9	5.1	-
HTS NOX (ppm)	80	130	80	-	130	160	130	-
HTS RPM	810	-	920	-	950	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	67	30.00	78	37	30.05
HTS	75	40	29.90	93	40	29.80

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(875)	800
DWELL	47	(47)	56
TIMING	-05	(-05)	-05
MECH ADVANCE	20	(10)	17
TOTAL ADVANCE	25	(17)	27
PROPANE IDLE CK	50		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500

Mech. Adv. @ 2500
Total Adv. @ 2500
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Spark Plugs
Replaced Points & Condenser
Replaced Engine Oil
Replaced Oil Filter
Adjusted Idle Speed
Adjusted Timing

PERFORMED BY: Independent Repair Garage
COST: $38.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.57	093.71	1220.7	08.50	07.51		HI	0891.0	00.3	1306.4	0070	00.4
DATE: 4-6-79	CS (grams)	004.89	082.13	1515.3	04.70	04.15		LOW	1297.8	00.5	0487.5	0120	00.6
ODOM: 43949	HT (grams)	003.75	048.86	1138.0	07.67	06.82		IDLE	2435.8	02.6	0095.9	0150	02.6
	COMP (GPM)	001.26	020.04	0358.5	01.70	01.50	22.5						
	HFET (GPM)	000.61	017.84	0232.8	01.80		33.76						
RETEST	FTP CT (grams)	007.95	122.11	1149.5	07.32	06.93		HI	1403.9	00.8	1170.1	0080	01.0
DATE: 6-5-79	CS (grams)	007.12	135.96	1441.3	04.26	04.03		LOW	1660.9	01.2	0410.6	0110	01.1
ODOM: *	HT (grams)	005.16	083.34	1091.0	06.60	06.25		IDLE	2949.2	03.2	0087.9	0140	03.1
	COMP (GPM)	001.80	031.46	0341.0	01.49	01.41	22.4						
	HFET (GPM)	000.64	009.85	0255.9	02.48		32.43						

* No Change to Odometer

APPENDIX C

EPA NO.: 51059 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	145	70	110	P	85	70	125	P
DEQ CO (%)	1.4	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	600	P	700	-	700	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	120	50	60	-	90	80	90	-
HTS CO (%)	1.5	0.1	0.1	-	0.1	0.1	0.1	-
HTS NOX (ppm)	80	260	70	-	70	140	70	-
HTS RPM	680	-	720	-	740	-	750	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	40	29.89	64	41	30.30
HTS	77	29	29.80	82	34	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	510	(655)	530
DWELL	N/A		N/A
TIMING	+17	(+12)	+18
MECH ADVANCE	28	(19)	31
TOTAL ADVANCE	47	(39)	43
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Air Filters

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Air Filters

MAINTENANCE — MAINT PRIOR TO RETEST
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Service Station
COST: $10.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.83	070.83	2427.0	13.53	11.45	
	CS (grams)	005.85	017.08	2388.0	09.14	07.79	
DATE: 3-22-79	HT (grams)	005.07	013.78	2009.0	14.55	12.40	
ODOM: 70247	COMP (GPM)	001.73	007.39	0610.2	03.10	02.64	14.1
	HFET (GPM)	000.85	001.77	0470.9	04.44		18.62
RETEST	FTP CT (grams)	010.02	051.36	2284.3	08.41	07.54	
	CS (grams)	006.67	010.62	2345.5	05.79	05.19	
DATE: 5-18-79	HT (grams)	005.94	014.05	1983.0	09.44	08.46	
ODOM: 72015	COMP (GPM)	001.92	005.43	0594.4	01.97	01.77	14.6
	HFET (GPM)	001.05	002.13	0489.0	04.06		17.89

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0618.7	00.0	0933.9	0050	00.0
LOW	0768.6	00.0	0494.6	0080	00.0
IDLE	1313.1	00.1	0057.7	0100	00.1
HI	0695.2	00.0	0661.8	0050	00.0
LOW	0936.9	00.0	0360.9	0080	00.0
IDLE	1692.5	00.1	0053.0	0130	00.1

EPA NO. 51059

APPENDIX C

EPA NO.: 51060 MAKE/MODEL: VOLKSWAGON/BUG ENG: 97-FI TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	100	35	115	P	90	70	120	P
DEQ CO (%)	2.3	0.3	2.1	P	2.0	0.4	2.0	P
DEQ RPM	1025	-	1025	P	1000	-	1000	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	590	110	270	-	210	70	160	-
HTS CO (%)	1.7	0.4	2.1	-	1.9	0.6	2.0	-
HTS NOX (ppm)	110	200	120	-	140	270	140	-
HTS RPM	820	-	840	-	920	-	940	-

	°F	RH	BARO	°F	RH	BARO
DEQ	50	80	29.50	65	50	30.32
HTS	80	44	29.42	77	45	30.26

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	840	(875)	790
DWELL	50	(47)	50
TIMING	+01	(-05)	000
MECH ADVANCE	11	(10)	23
TOTAL ADVANCE	18	(17)	23
PROPANE IDLE CK	60		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	POOR	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Ign. Timing @ Idle

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Rotor Gap Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.81	112.62	1121.7	09.10	07.78	
DATE: 3-28-79	CS (grams)	007.47	103.60	1390.0	07.10	06.01	
ODOM: 46319	HT (grams)	005.23	046.98	1085.6	09.11	07.85	
	COMP (GPM)	001.90	023.84	0332.1	02.16	01.84	23.6
	HFET (GPM)	000.95	008.58	0237.7	02.55		34.89
RETEST	FTP CT (grams)	007.83	087.96	1135.4	08.20	07.64	
DATE: 5-25-79	CS (grams)	006.15	061.14	1563.8	09.28	08.64	
ODOM: 47384	HT (grams)	005.06	040.94	1282.1	12.92	12.04	
	COMP (GPM)	001.65	016.31	0371.0	02.69	02.51	22.1
	HFET (GPM)	000.84	005.28	0280.9	03.17		30.39

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1777.2	00.6	1369.1	0100	00.7
LOW	1817.0	00.7	1039.1	0100	00.8
IDLE	2398.4	02.5	0119.4	0110	02.5
HI	1417.1	00.2	1771.9	0080	00.2
LOW	1453.9	00.2	0962.6	0080	00.2
IDLE	1918.8	01.9	0115.0	0100	01.9

APPENDIX C

EPA NO.: 51061 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	32	95	50	P				
DEQ CO (%)	0.3	0.8	0.2	P				
DEQ RPM	900	-	900	P				
DEQ QUEUE TIME	15 Minutes							
HTS HC (ppm)	2260	210	180	-				
HTS CO (%)	0.3	0.3	0.3	-				
HTS NOX (ppm)	70	210	70	-				
HTS RPM	730	-	770	-				

No Retest - Vehicle Dropped from program

	°F	RH	BARO	°F	RH	BARO
DEQ	50	82	29.50			
HTS	72	45	29.44			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	830	(700)
DWELL	38	(52)
TIMING	+17	(+10)
MECH ADVANCE	29	(23)
TOTAL ADVANCE	59	(41)
PROPANE IDLE CK	0	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	OK
BRAKES	POOR
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dwell
- EGR

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.89	063.01	1122.0	22.78	19.56	
DATE: 3-29-79	CS (grams)	004.38	036.00	1273.4	15.46	13.27	
ODOM: 52892	HT (grams)	004.30	020.98	0995.3	22.11	18.81	
	COMP (GPM)	001.42	010.01	0309.8	05.05	04.32	26.9
	HFET (GPM)	000.89	003.17	0227.7	06.78		37.66
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1440.6	00.2	2436.8	0080	00.2
LOW	1281.5	00.1	1580.2	0090	00.2
IDLE	0663.4	00.3	0124.3	0040	00.4
HI					
LOW					
IDLE					

EPA NO. 51061

APPENDIX C

EPA NO.: 51062 MAKE/MODEL: TOYOTA/CORONA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	20	25	50	P	40	20	55	P
DEQ CO (%)	0.6	0.4	0.3	P	0.6	0.3	0.6	P
DEQ RPM	1200	-	1250	P	1150	-	1200	P
DEQ QUEUE TIME	5 Minutes				20 Minutes			
HTS HC (ppm)	90	40	80	-	60	30	70	
HTS CO (%)	0.5	0.5	0.5	-	0.6	0.5	0.6	-
HTS NOX (ppm)	60	110	60	-	60	90	60	-
HTS RPM	1020	-	1070	-	1020	-	1080	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	52	30.10	69	40	30.20
HTS	65	52	30.06	82	43	30.12

BIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	940	(855)	910
DWELL	54	(52)	55
TIMING	+08	(+08)	+10
MECH ADVANCE	21	(23)	24
TOTAL ADVANCE	42	(43)	45
PROPANE IDLE CK	30		50

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt. Dwell
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	014.07	090.69	1544.4	19.04	16.48		HI	0924.6	00.9	1662.1	0070	01.1
		CS (grams)	006.60	073.24	1849.4	05.29	04.66		LOW	0683.0	01.4	0511.4	0050	01.5
DATE:4-4-79		HT (grams)	011.46	058.96	1388.8	14.73	12.97		IDLE	0334.3	00.4	0064.9	0030	00.6
ODOM:52810		COMP (GPM)	002.56	019.45	0440.7	02.92	02.55	18.5						
	HFET	(GPM)	000.44	012.81	0294.6	04.47		28.05						
RETEST	FTP	CT (grams)	004.99	088.39	1463.1	14.75	13.29		HI	0687.8	00.6	1529.2	0040	00.7
		CS (grams)	002.95	067.40	1835.3	04.96	04.62		LOW	0837.8	01.3	0481.0	0045	01.0
DATE:6-1-79		HT (grams)	003.78	049.13	1352.5	12.99	12.35		IDLE	0599.1	00.5	0066.1	0050	00.5
ODOM:54674		COMP (GPM)	000.97	017.79	0431.4	02.49	02.32	19.2						
	HFET	(GPM)	000.38	011.88	0276.4	03.95		29.93						

EPA NO. 51062

APPENDIX C

EPA NO.: 51063 MAKE/MODEL: FORD/LTD ENG: 400-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S	
DEQ HC (ppm)	105	35	105	P	100				Spark Plugs
DEQ CO (%)	0.6	0.1	0.6	P	0.5				all loose on
DEQ RPM	600	-	600	P					left side
DEQ QUEUE TIME	20 Minutes				5 Minutes				No Test
HTS HC (ppm)	150	20	160	-	230	30	200	-	
HTS CO (%)	0.5	0.0	0.5	-	0.5	0.1	0.5	-	
HTS NOX (ppm)	60	120	80	-	50	140	60	-	
HTS RPM	660	-	660	-	770	-	780	-	
	°F	RH	BARO		°F	RH	BARO		
DEQ	52	53	30.10		67	51	30.32		
HTS	68	46	30.06		78	43	30.26		

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(700)	590
DWELL	N/A		N/A
TIMING	+08	(+08)	+19
MECH ADVANCE	13	(15)	27
TOTAL ADVANCE	36	(39)	35
PROPANE IDLE CK	50		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES, DIESELS	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Spark Plug Firing Volt.

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Cyl. Power Dist.

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.33	051.88	3194.3	19.00	16.27	
DATE: 3-30-79	CS (grams)	004.56	039.78	3407.3	07.01	06.00	
ODOM: 60822	HT (grams)	004.93	020.16	2748.8	10.10	08.65	
	COMP (GPM)	001.40	009.81	0846.3	02.79	02.39	10.2
	HFET (GPM)	000.30	001.73	0621.5	02.91		14.18
RETEST	FTP CT (grams)	007.10	032.80	2756.5	25.16	23.75	
DATE: 5-25-79	CS (grams)	004.16	044.95	2947.2	11.66	11.01	
ODOM: 61873	HT (grams)	004.55	025.45	2477.1	12.57	11.78	
	COMP (GPM)	001.31	009.81	0739.3	03.95	03.72	11.7
	HFET (GPM)	000.36	001.85	0529.0	02.83		16.63

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0138.5	00.0	0396.8	0000	00.0
LOW	0462.7	00.0	0358.6	0020	00.0
IDLE	0991.9	0015	0064.9	0070	00.6
HI	0227.2	00.1	0470.8	0020	00.0
LOW	0450.5	00.0	0394.4	0030	00.0
IDLE	0787.0	00.7	0091.2	0060	00.6

EPA NO. 51063

APPENDIX C

EPA NO.: 51064 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 400-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	180	30	45	P	115	340	205	P
DEQ CO (%)	0.2	0.0	0.0	P	0.1	0.2	0.1	P
DEQ RPM	650	-	675	P	650	-	650	P
DEQ QUEUE TIME	10 Minutes				35 Minutes			
HTS HC (ppm)	160	80	110	-	140	40	120	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	170	60	-	60	180	60	-
HTS RPM	670	-	660	-	680	-	670	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	49	30.35	69	40	32.20
HTS	68	42	30.28	97	30	30.13

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(655)	530
DWELL	N/A		N/A
TIMING	+16	(+16)	+16
MECH ADVANCE	25	(25)	24
TOTAL ADVANCE	48	(50)	48
PROPANE IDLE CK	110		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt.

Idle Speed
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	009.86	073.52	2385.4	09.33	08.30		HI	0055.9	00.0	0599.7	0020	00.0
	CS (grams)	005.37	036.07	2393.6	07.51	06.68		LOW	0055.9	00.0	0933.9	0020	00.0
DATE: 4-04-79	HT (grams)	002.62	016.71	2115.5	09.31	08.29		IDLE	0120.1	00.2	0048.2	0050	00.3
ODOM: 24104	COMP (GPM)	001.48	010.29	0616.7	02.24	02.00	13.9						
	HFET (GPM)	000.26	002.80	0493.6	02.72		17.78						
RETEST	FTP CT (grams)	008.84	078.06	2230.4	08.00	07.15		HI	0195.2	00.0	0585.3	0010	00.0
	CS (grams)	002.11	011.88	2385.4	07.09	06.40		LOW	0158.5	00.0	0864.4	0020	00.0
DATE: 6-01-79	HT (grams)	004.07	025.47	1963.9	07.96	07.14		IDLE	0326.8	00.2	0063.6	0040	00.1
ODOM: 24895	COMP (GPM)	001.10	008.00	0595.2	02.01	01.81	14.5						
	HFET (GPM)	000.14	000.79	0452.7	02.30		19.52						

APPENDIX C

EPA NO.: 51065 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	125	80	125	P	85	55	115	P
DEQ CO (%)	0.6	0.1	0.5	P	0.4	0.6	0.4	P
DEQ RPM	800	-	800	P	1100	-	1100	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	120	60	100	-	150	60	140	-
HTS CO (%)	0.4	0.1	0.6	-	0.3	0.2	0.4	-
HTS NOX (ppm)	60	160	70	-	60	160	60	-
HTS RPM	930	-	980	-	1070	-	1060	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	47	30.35	72	26	30.20
HTS	63	46	30.31	80	41	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	910	(700)	770
DWELL	48	(52)	45
TIMING	+06	(+10)	+10
MECH ADVANCE	20	(23)	20
TOTAL ADVANCE	42	(41)	36
PROPANE IDLE CK	160		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	GRABS	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS:		
	Idle Speed	
	Ign. Timing @ Idle	
	Mech. Adv. @ 2500	Mech. Adv. @ 2500
	Dist. Point Volt. Drop	Total Adv. @ 2500
	Spark Plug Firing Volt.	Dist. Point Volt. Drop
	Dwell	Spark Plug Firing Volt.
	EGR	Dwell
		EGR

MAINTENANCE	MAINT PRIOR TO RETEST
	None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.63	036.27	1092.1	16.58	14.01	
	CS (grams)	008.27	024.15	1213.0	10.93	09.30	
DATE: 4-03-79	HT (grams)	007.84	022.90	0952.4	15.21	12.86	
ODOM: 61543	COMP (GPM)	002.08	007.04	0296.7	03.57	03.02	28.2
	HFET (GPM)	000.93	002.90	0210.9	04.53		40.61
RETEST	FTP CT (grams)	006.24	048.47	1067.1	17.74	15.74	
	CS (grams)	008.55	024.62	1207.9	11.71	10.31	
DATE: 5-31-79	HT (grams)	006.47	017.94	0950.7	17.18	15.03	
ODOM: 65107	COMP (GPM)	001.99	007.43	0294.5	03.88	03.42	28.4
	HFET (GPM)	000.91	004.08	0204.6	04.41		41.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1180.5	00.1	2271.8	0080	00.1
LOW	1905.7	00.1	1036.7	0140	00.2
IDLE	1039.7	00.3	0058.8	0095	00.3
HI	1296.8	00.2	2436.8	0100	00.2
LOW	1660.9	00.1	0973.6	0150	00.1
IDLE	1290.7	00.4	0087.9	0130	00.4

EPA NO. 51065

APPENDIX C

EPA NO.: 51066 MAKE/MODEL: MERCURY/MONARCH ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	50	35	60	P	55	40	60	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	1000	-	1050	P
DEQ QUEUE TIME	10 Minutes				23 Minutes			
HTS HC (ppm)	70	20	50	-	60	30	50	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	260	130	-	120	320	130	-
HTS RPM	960	-	980	-	1040	-	1020	-

	°F	RH	BARO	°F	RH	BARO
DEQ	49	66	30.50	68	41	30.20
HTS	66	48	30.40	75	44	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(655)	620
DWELL	N/A		N/A
TIMING	+16	(+06)	+16
MECH ADVANCE	27	(17)	26
TOTAL ADVANCE	47	(37)	46
PROPANE IDLE CK	0		20

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.85	045.52	2418.7	19.08	16.51	
DATE: 4-03-79	CS (grams)	002.80	001.60	2429.0	22.04	19.07	
ODOM: 12806	HT (grams)	003.63	005.86	2183.7	21.80	18.87	
	COMP (GPM)	001.10	003.27	0628.5	05.69	04.92	13.9
	HFET (GPM)	000.45	001.12	0520.4	05.25		16.94
RETEST	FTP CT (grams)	005.45	044.97	2126.2	13.26	13.48	
DATE: 6-01-79	CS (grams)	002.22	002.39	2281.2	15.08	15.20	
ODOM: 13388	HT (grams)	003.02	012.54	1949.7	14.69	14.81	
	COMP (GPM)	000.84	003.85	0574.2	03.89	03.92	15.2
	HFET (GPM)	000.40	001.09	0451.5	04.21		19.51

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0471.9	00.0	0711.9	0040	00.0
LOW	0435.2	00.0	1776.7	0050	00.0
IDLE	0282.3	00.0	0112.7	0020	00.0
HI	0413.8	00.0	0485.1	0040	00.0
LOW	0413.8	00.0	1232.4	0040	00.0
IDLE	0282.3	00.0	0115.0	0020	00.0

EPA NO.: 51067 MAKE/MODEL: CHEV/VEGA ENG: 140-2V TRANS:MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	60	85	P	140	115	140	P
DEQ CO (%)	0.6	0.7	0.2	P	4.7	2.7	2.3	F
DEQ RPM	1050	-	1050	P	1200	-	1200	F
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	100	110	90	-	90	60	50	-
HTS CO (%)	0.9	0.9	0.1	-	0.1	0.6	0.1	-
HTS NOX (ppm)	60	220	70	-	120	290	110	-
HTS RPM	1070	-	990	-	990	-	1040	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	63	30.50	82	28	30.00
HTS	63	46	30.38	72	49	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	1010	(700)	1030
DWELL	N/A		N/A
TIMING	+16	(+10)	+12
MECH ADVANCE	19	(18)	17
TOTAL ADVANCE	35	(43)	44
PROPANE IDLE CK	200		190

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLES, BACKFIRES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Ign. Timing @ Idle
Total Adv. @ 2500
Cyl. Power Dist.

Idle Speed
Ign. Timing @ Idle

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	TEST	FTP & HFET RESULTS HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.85	113.51	1310.8	09.24	08.00	
	CS (grams)	006.92	057.31	1618.3	07.95	06.82	
DATE: 4-4-79	HT (grams)	006.25	038.77	1210.5	09.98	08.55	
ODOM: 61674	COMP (GPM)	002.13	017.10	0382.9	02.35	02.02	21.3
	HFET (GPM)	000.67	002.40	0243.4	02.65		35.57
RETEST	FTP CT (grams)	012.69	128.18	1232.2	07.01	06.57	
	CS (grams)	007.43	066.23	1507.6	06.53	06.12	
DATE: 6-05-79	HT (grams)	006.80	057.06	1157.2	07.53	06.92	
ODOM: 63390	COMP (GPM)	002.24	020.52	0359.6	01.84	01.72	22.2
	HFET (GPM)	000.59	003.05	0244.5	02.21		35.31

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1226.4	00.1	1441.9	0070	00.1
LOW	1676.2	00.3	1187.1	0110	00.4
IDLE	0935.7	00.1	0085.5	0060	00.2
HI	1930.2	00.2	1116.7	0120	00.2
LOW	1777.2	00.3	0961.4	0110	00.3
IDLE	1226.4	00.4	0080.6	0080	00.4

EPA NO. 51067

EPA NO.: 51068 MAKE/MODEL: FORD/LTD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	40	35	45	P	30	25	35	P
DEQ CO (%)	0.4	0.2	0.5	P	0.5	0.3	0.4	P
DEQ RPM	850	-	900	P	No RPM Given			
DEQ QUEUE TIME	10 Minutes				15 Minutes			
HTS HC (ppm)	70	20	30	-	40	10	20	-
HTS CO (%)	0.8	0.2	0.3	-	0.5	0.2	0.2	-
HTS NOX (ppm)	60	100	70	-	80	140	80	-
HTS RPM	810	-	910	-	930	-	910	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	56	30.40	68	41	30.20
HTS	67	41	30.28	82	33	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	620	(655)	620
DWELL	N/A		N/A
TIMING	+09	(+08)	+09
MECH ADVANCE	17	(15)	16
TOTAL ADVANCE	31	(39)	42
PROPANE IDLE CK	120		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt.
Cyl. Power Dist.
Total Adv. @ 2500

Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	TEST	FTP & HFET RESULTS HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.10	078.49	2838.3	09.13	08.22	
DATE: 4-04-79	CS (grams)	003.11	071.86	3227.9	04.82	04.34	
ODOM: 72421	HT (grams)	002.98	068.41	2511.6	08.27	07.50	
	COMP (GPM)	000.88	019.28	0784.0	01.79	01.62	10.9
	HFET (GPM)	000.72	021.12	0535.6	02.46		15.53
RETEST	FTP CT (grams)	005.55	095.95	3049.8	09.62	08.69	
DATE: 6-01-79	CS (grams)	002.41	059.93	3327.4	07.23	06.53	
ODOM: 74122	HT (grams)	001.90	051.59	2784.8	09.98	08.95	
	COMP (GPM)	000.78	017.41	0830.1	02.27	02.05	10.3
	HFET (GPM)	000.16	006.78	0585.8	02.29		14.86

FED THREE-MODE TEST RESULTS TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0120.1	00.4	0587.8	0030	00.6
LOW	0080.4	00.1	0229.6	0020	00.2
IDLE	0215.0	00.5	0105.5	0050	00.6
HI	0144.6	00.2	0504.2	0020	00.2
LOW	0224.1	00.1	0310.8	0020	00.1
IDLE	0621.8	00.5	0105.5	0040	00.5

EPA NO. 51068

APPENDIX C

EPA NO.: 51069 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	15	50	P				
DEQ CO (%)	0.4	0.2	0.2	P				
DEQ RPM	1200	-	1200	P	No Retest - Vehicle Dropped from program			
DEQ QUEUE TIME	10 Minutes							
HTS HC (ppm)	60	20	50	-				
HTS CO (%)	0.2	0.3	0.2	-				
HTS NOX (ppm)	40	70	40	-				
HTS RPM	1030	-	1090	-				

	°F	RH	BARO	°F	RH	BARO
DEQ	52	57	30.35			
HTS	62	54	30.28			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	960	(855)
DWELL	60	(57)
TIMING	+09	(+12)
MECH ADVANCE	18	(27)
TOTAL ADVANCE	31	(41)
PROPANE IDLE CK	110	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS:
- Idle Speed
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dist. Point Volt. Drop
- Cyl. Power Dist.
- Dwell
- Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	005.27	066.63	1410.5	07.44	06.51		HI	0314.5	00.2	0716.4	0020	00.2
DATE: 4-04-79		CS (grams)	003.30	037.03	1689.2	03.99	03.51		LOW	0320.6	00.3	0221.4	0030	00.3
ODOM: 53653		HT (grams)	004.07	026.62	1284.4	06.30	05.51		IDLE	0476.7	00.2	0053.9	0040	00.2
		COMP (GPM)	001.05	010.78	0403.7	01.44	01.26	20.9						
	HFET	(GPM)	000.16	003.43	0257.1	01.64		33.72						
RETEST	FTP	CT (grams)							HI					
DATE:		CS (grams)							LOW					
ODOM:		HT (grams)							IDLE					
		COMP (GPM)												
	HFET	(GPM)												

EPA NO. 51069

EPA NO.: 51070 MAKE/MODEL: HONDA/CIVIC ENG: 76-2V TRANS:MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	70	25	130	P	85	70	90	P
DEQ CO (%)	1.1	0.5	0.8	P	1.2	0.6	0.9	P
DEQ RPM	900	-	900	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				20 Minutes			
HTS HC (ppm)	100	30	90	-	90	30	80	-
HTS CO (%)	1.3	0.7	0.9	-	0.9	0.7	0.7	-
HTS NOX (ppm)	60	90	80	-	70	90	100	-
HTS RPM	870	-	810	-	850	-	840	-

	°F	RH	BARO	°F	RH	BARO
DEQ	56	56	30.30	68	41	30.20
HTS	70	44	30.26	75	44	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	790	(855)	760
DWELL	56	(52)	56
TIMING	+02	(+07)	000
MECH ADVANCE	19	(20)	13
TOTAL ADVANCE	32	(39)	32
PROPANE IDLE CK	40		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Total Adv. @ 2500
- Dist. Point Volt. Drop
- Dwell

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.18	038.17	1192.3	11.30	10.15		HI	0753.3	00.5	1884.1	0040	00.6
DATE:4-05-79	CS (grams)	007.19	051.09	1321.5	04.61	04.17		LOW	0753.3	00.5	0360.9	0070	00.7
	HT (grams)	005.81	043.58	1019.9	10.91	09.80		IDLE	1273.4	00.3	0086.4	0100	00.5
ODOM:24682	COMP (GPM)	001.70	012.31	0322.1	02.09	01.88	25.6						
	HFET (GPM)	000.60	007.48	0225.8	04.04		37.03						
RETEST	FTP CT (grams)	004.47	106.35	1154.7	08.64	08.22		HI	0667.7	00.4	1791.0	0040	00.4
DATE:6-01-79	CS (grams)	006.50	049.03	1283.5	03.99	03.88		LOW	1169.4	00.5	0353.8	0080	00.5
	HT (grams)	006.02	041.58	0993.6	09.54	09.26		IDLE	1490.6	00.3	0091.2	0120	00.3
ODOM:26050	COMP (GPM)	001.58	015.79	0312.9	01.75	01.69	25.9						
	HFET (GPM)	000.58	007.15	0219.9	03.93		38.06						

APPENDIX C

EPA NO.: 51071 MAKE/MODEL: FORD/LTD ENG:400-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	15	45	P	10	5	15	P
DEQ CO (%)	0.4	0.0	0.5	P	0.5	0.1	0.4	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				10 Minutes			
HTS HC (ppm)	40	10	40	-	000	000	000	-
HTS CO (%)	0.5	0.1	0.6	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	200	70	-	80	190	70	-
HTS RPM	790	-	850	-	800	-	800	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	58	56	30.00	65	60	30.10
HTS	71	43	29.88	67	66	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	770	(700)	620
DWELL	N/A		N/A
TIMING	+11	(+08)	+11
MECH ADVANCE	17	(15)	18
TOTAL ADVANCE	41	(39)	41
PROPANE IDLE CK	50		20

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR - Plugged

Idle Speed
EGR - Plugged

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Oil Filter
Replaced Engine Oil

PERFORMED BY: Independent Repair Garage
COST: $13.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.48	077.41	3375.6	18.36	16.53	
	CS (grams)	002.87	070.52	3346.4	10.80	09.72	
DATE:4-05-79	HT (grams)	002.93	052.15	2835.9	17.91	16.12	
ODOM:69936	COMP (GPM)	000.86	017.80	0855.3	03.85	03.47	10.0
	HFET (GPM)	000.18	003.55	0619.7	05.09		14.17
RETEST	FTP CT (grams)	008.63	090.94	2990.4	13.70	12.75	
	CS (grams)	002.83	073.70	3308.6	09.27	08.63	
DATE:6-06-79	HT (grams)	004.15	052.25	2730.1	14.93	13.80	
ODOM:71992	COMP (GPM)	001.19	019.01	0820.1	03.16	02.93	10.4
	HFET (GPM)	000.18	003.78	0568.5	04.55		15.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0126.2	00.1	0988.8	0000	00.0
LOW	0159.9	00.1	0468.4	0000	00.0
IDLE	0328.1	00.6	0062.5	0010	00.6
HI	0098.7	00.1	0819.3	0020	00.1
LOW	0297.6	00.1	0427.8	0030	00.1
IDLE	0676.9	00.9	0081.6	0060	00.9

EPA NO.51071

APPENDIX C

EPA NO.: 51073 MAKE/MODEL: CHEV/IMPALA ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	45	70	P	40	45	40	P
DEQ CO (%)	0.6	0.4	0.5	P	0.2	0.1	0.2	P
DEQ RPM	900	-	900	P	1000	-	1000	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	80	30	30	-	90	50	90	-
HTS CO (%)	0.1	0.1	0.0	-	0.3	0.6	0.9	-
HTS NOX (ppm)	90	180	100	-	90	200	110	-
HTS RPM	830	-	900	-	820	-	920	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	53	50	30.35		66	45	30.30	
HTS	71	48	30.26		80	38	30.23	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	610	(600)	590
DWELL	N/A		N/A
TIMING	+03	(+06)	+03
MECH ADVANCE	17	(21)	18
TOTAL ADVANCE	36	(39)	36
PROPANE IDLE CK	80		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	POOR	OK
OVERALL PERF	STUMBLES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.74	190.60	2576.4	13.08	11.61	
	CS (grams)	006.33	148.09	2680.2	07.33	06.46	
DATE: 4-10-79	HT (grams)	003.79	091.92	2399.1	11.84	10.50	
ODOM: 45167	COMP (GPM)	002.03	037.66	0687.4	02.63	02.33	11.8
	HFET (GPM)	000.11	002.12	0527.9	03.76		16.68
RETEST	FTP CT (grams)	006.33	117.33	2430.1	12.50	11.16	
	CS (grams)	003.96	083.88	2605.2	06.59	05.88	
DATE: 6-09-79	HT (grams)	002.37	043.47	2207.4	10.90	09.91	
ODOM: 46963	COMP (GPM)	001.07	021.22	0654.4	02.42	02.18	12.8
	HFET (GPM)	000.10	001.83	0500.5	03.97		17.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0193.5	00.0	0988.8	0020	00.0
LOW	0147.7	00.0	0222.5	0020	00.0
IDLE	1089.8	00.6	0210.5	0080	00.7
HI	0222.7	00.0	1109.5	0020	00.0
LOW	0231.9	00.0	0279.6	0030	00.0
IDLE	0978.5	00.5	0177.7	0060	00.4

EPA NO.51073

APPENDIX C

EPA NO.: 52051 MAKE/MODEL: AUDI/FOX ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	85	35	70	P								
DEQ CO (%)	3.2	0.2	2.7	F								
DEQ RPM	1110	-	1110	P	No Retest - Vehicle Dropped from Program							
DEQ QUEUE TIME	5 Minutes											
HTS HC (ppm)	40	20	40	-								
HTS CO (%)	1.5	0.2	1.4	-								
HTS NOX (ppm)	100	160	110	-								
HTS RPM	1120	-	1140	-								
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	78	30.05									
HTS	60	68	30.02									

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	1080	(875)
DWELL	48	(50)
TIMING	-05	(-06)
MECH ADVANCE	23	(23)
TOTAL ADVANCE	29	(25)
PROPANE IDLE CK	130	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	OK
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: FI

PROBLEM AREAS: Idle Speed
Spk Plg Frng Volt.
Rotor Gap Volt.

MAINTENANCE

MAINT TO PASS DEQ

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.56	052.49	1205.4	10.62	10.07	
DATE: 3-05-79	CS (grams)	003.99	053.57	1490.2	08.01	07.60	
ODOM: 41028	HT (grams)	003.61	030.52	1068.1	11.35	10.77	
	COMP (GPM)	001.12	012.47	0349.0	02.54	02.41	23.8
	HFET (GPM)	000.48	002.01	0223.2	02.68		38.92
MAINT RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1186.6	00.2	2048.5	0050	00.2
LOW	1440.6	00.2	0917.8	0070	00.2
IDLE	1376.3	02.0	0102.5	0030	01.8
HI					
LOW					
IDLE					
HI					
LOW					
IDLE					

EPA NO.52051

APPENDIX C

EPA NO.: 52052 MAKE/MODEL: BUICK/LIMITED ENG: 455-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	140	190	165	F	80	30	90	P	40	50	45	P
DEQ CO (%)	3.8	0.5	3.9	F	1.3	0.3	0.9	P	0.0	0.3	0.0	P
DEQ RPM	800	-	800	P	820	-	900	P	850	-	900	P
DEQ QUEUE TIME	10 Minutes				40 Minutes				15 Minutes			
HTS HC (ppm)	100	20	100	-	80	50	60	-	20	60	20	-
HTS CO (%)	2.1	0.0	2.7	-	0.5	0.3	0.5	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	170	110	-	100	180	110	-	120	200	120	-
HTS RPM	800	-	800	-	750	-	790	-	840	-	830	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	48	80	30.10	50	81	29.50	60	42	30.45
HTS	62	74	30.04	65	66	29.68	73	35	30.36

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(600)	630		620
DWELL	N/A		N/A		N/A
TIMING	+11	(+12)	+12		+13
MECH ADVANCE	19	(20)	20		20
TOTAL ADVANCE	37	(37)	34		33
PROPANE IDLE CK	10		90		140
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Fast Idle Speed Air Filters - Cond.		Fast Idle Speed Cyl. Power Dist.		None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Replaced PCV System Adjusted Carburetor Float Adjusted Idle Speed	None
PERFORMED BY:	Independent Garage	
COST:	$33.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOX C	MPG
INITIAL	FTP CT (grams)	012.89	241.70	2590.5	13.16	12.02	
DATE: 3-06-79	CS (grams)	014.47	351.20	2643.0	04.54	04.14	
	HT (grams)	010.65	169.63	2256.3	09.09	08.30	
ODOM: 53366	COMP (GPM)	003.48	073.58	0672.4	02.05	01.87	11.1
	HFET (GPM)	001.29	020.44	0509.3	02.10		16.26
MAINT RETEST	FTP CT (grams)	012.78	233.81	2927.2	12.08	10.32	
DATE: 3-30-79	CS (grams)	010.37	140.29	3095.2	06.98	06.02	
	HT (grams)	008.62	077.01	2625.1	09.53	08.15	
ODOM: 54026	COMP (GPM)	002.77	037.96	0780.0	02.35	02.01	10.5
	HFET (GPM)	000.40	003.37	0555.6	02.57		15.77
RETEST	FTP CT (grams)	008.38	138.58	2737.9	12.78	11.13	
DATE: 5-30-79	CS (grams)	002.16	004.11	3107.1	08.58	07.55	
	HT (grams)	003.39	014.84	2565.4	11.73	10.33	
ODOM: 55309	COMP (GPM)	001.03	009.62	0766.2	02.77	02.43	11.3
	HFET (GPM)	000.22	000.79	0522.1	02.98		16.92

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0954.1	00.2	0565.9	0070	00.3
LOW	2104.6	01.2	0136.4	0140	01.2
IDLE	3456.9	04.5	0073.3	0200	04.6
HI	0302.3	00.0	0624.2	0040	00.1
LOW	0742.9	00.2	0204.4	0080	00.2
IDLE	1810.9	00.9	0141.3	0140	00.8
HI	0224.1	00.0	0771.6	0020	00.0
LOW	0355.7	00.0	0217.7	0030	00.0
IDLE	0172.1	00.0	0158.0	0020	00.0

EPA NO. 52052

EPA NO.: 52053 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	110	115	105	P	80	105	115	P	25	30	25	P
DEQ CO (%)	3.8	3.6	1.5	P	0.6	1.6	0.3	P	0.0	0.0	0.0	P
DEQ RPM	1150	-	1150	F	900	-	900	P	900	-	950	P
DEQ QUEUE TIME	35 Minutes				30 Minutes				15 Minutes			
HTS HC (ppm)	100	120	70	-	80	120	80	-	20	30	20	-
HTS CO (%)	1.0	1.2	0.4	-	0.0	1.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	240	120	-	90	360	80	-	80	320	85	-
HTS RPM	1060	-	1010	-	830	-	820	-	890	-	810	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	64	30.12		60	40	30.05		58	52	30.45	
HTS	73	61	30.32		75	40	29.86		75	40	30.36	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	680	(555)	590	600
DWELL	N/A		N/A	N/A
TIMING	+06	(+10)	+10	+07
MECH ADVANCE	18	(18)	19	19
TOTAL ADVANCE	47	(36)	36	28
PROPANE IDLE CK	160		140	140

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	POOR	OK	OK
OVERALL PERF	STUMBLE	OK	STUMBLE
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Total Adv. @ 2500
- Spark Plg Frng Volt.

Spark Plug Frng Volt

Ign. Timing @ Idle
Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$4.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.15	106.52	1967.2	14.79	12.87	
	CS (grams)	001.10	008.54	2229.5	07.12	06.20	
DATE: 3-07-79	HT (grams)	002.64	020.06	1715.0	12.80	11.15	
ODOM: 26630	COMP (GPM)	000.82	008.77	0540.4	02.77	02.41	15.9
	HFET (GPM)	000.12	000.21	0383.9	04.35		23.06
MAINT RETEST	FTP CT (grams)	008.15	099.17	2093.5	16.87	14.19	
	CS (grams)	001.77	018.28	2348.4	08.64	07.27	
DATE: 3-22-79	HT (grams)	002.71	018.90	1869.1	15.64	13.16	
ODOM: 26782	COMP (GPM)	000.91	009.56	0575.2	03.31	02.78	15.0
	HFET (GPM)	000.13	000.52	0415.7	04.69		21.27
RETEST	FTP CT (grams)	011.79	089.33	2073.4	12.61	11.06	
	CS (grams)	000.99	005.85	2207.0	07.22	06.28	
DATE: 5-12-79	HT (grams)	002.46	008.75	1769.6	11.49	10.00	
ODOM: 27277	COMP (GPM)	000.99	006.57	0547.6	02.56	02.23	15.8
	HFET (GPM)	000.10	000.17	0395.9	03.75		22.37

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0267.0	00.0	1977.3	0050	00.0
LOW	0215.0	00.0	1218.0	0050	00.0
IDLE	0163.0	00.0	0170.0	0020	00.0
HI	0211.9	00.0	2068.0	0000	00.0
LOW	0193.5	00.0	1600.0	0000	00.0
IDLE	0915.5	00.6	0146.1	0010	00.6
HI	0159.9	00.0	1456.8	0030	00.0
LOW	0163.0	00.0	1330.3	0030	00.0
IDLE	0098.7	00.0	122.2	0020	00.0

EPA NO. 52053

APPENDIX C

EPA NO.: 52054 MAKE/MODEL: CHEV/MALIBU ENG: 350-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	400	135	315	F	35	75	40	P	345	110	415	F
DEQ CO (%)	7.1	2.0	4.3	F	0.1	1.7	0.0	P	5.3	0.7	5.8	F
DEQ RPM	900	-	900	P	825	-	800	P	900	-	900	P
DEQ QUEUE TIME	15 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	320	50	250	-	120	40	80	-	350	80	410	-
HTS CO (%)	2.5	0.0	2.9	-	0.0	0.1	0.0	-	4.5	0.8	4.9	-
HTS NOX (ppm)	100	170	110	-	80	140	90	-	120	170	130	-
HTS RPM	790	-	860	-	700	-	790	-	870	-	820	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	66	30.30		59	54	30.10		67	52	30.15	
HTS	76	55	30.28		77	39	30.05		78	46	30.09	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	560	(600)	600	560
DWELL	N/A		N/A	N/A
TIMING	+11	(+06)	+06	+09
MECH ADVANCE	25	(21)	21	23
TOTAL ADVANCE	39	(39)	41	39
PROPANE IDLE CK	30		110	0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	SURGES	SURGES, ENG. DIESL	OK
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500	Vacuum Hoses Heat Riser - Hose	Ign. Timing @ Idle Mech. Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filter Adjusted Carburetor & Choke Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Independent Repair Garage	
COST:	$42.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

EPA NO.: 52054 MAKE/MODEL : CHEV/MALIBU ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	25	20	25	P	40	25	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	20 Minutes				35 Minutes			
HTS HC (ppm)	30	20	20	-	90	30	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	160	80	-	60	160	70	-
HTS RPM	750	-	760	-	790	-	810	-

	°F	RH	BARO	°F	RH	BARO
DEQ	68	47	30.12	72	44	30.10
HTS	83	42	30.07	77	52	30.13

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(600)	560
DWELL	N/A		N/A
TIMING	+07	(+06)	+07
MECH ADVANCE	20	(21)	21
TOTAL ADVANCE	39	(39)	38
PROPANE IDLE CK	90		160

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None None

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
	Adjusted Choke	
	Adjusted Idle Speed	
	Adjusted Timing	

PERFORMED BY: HTS
COST: None
MANHOURS: 1 Hour
OWNER'S DRIVEABILITY EVAL: N/A No Major Problems
OWNER SATISFIED WITH VEH: N/A Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.61	208.25	2068.1	11.69	10.11	
DATE: 3-07-79	CS (grams)	013.19	308.31	2042.4	04.13	03.59	
ODOM: 37019	HT (grams)	006.55	130.07	1794.6	10.10	08.80	
	COMP (GPM)	002.92	062.93	0527.3	01.99	01.73	14.0
	HFET (GPM)	000.32	008.38	0450.0	03.39		19.10
MAINT RETEST	FTP CT (grams)	012.24	181.92	2286.9	07.08	06.50	
DATE: 3-15-79	CS (grams)	005.13	142.33	2460.0	02.97	02.73	
ODOM: 37354	HT (grams)	003.21	046.80	2042.5	05.86	05.32	
	COMP (GPM)	001.63	032.96	0614.3	01.25	01.14	13.2
	HFET (GPM)	000.10	002.79	0469.6	02.07		18.70
RETEST	FTP CT (grams)	012.93	204.53	2019.4	10.17	09.51	
DATE: 5-24-79	CS (grams)	016.27	363.90	2068.3	03.72	03.48	
ODOM: 39292	HT (grams)	012.32	157.48	1847.0	09.59	09.04	
	COMP (GPM)	003.85	072.21	0531.9	01.81	01.70	13.5
	HFET (GPM)	000.53	011.33	0441.0	02.76		19.26
HTS MAINT RETEST	FTP CT (grams)	006.48	097.70	2274.4	11.76	10.21	
DATE: 5-25-79	CS (grams)	001.06	019.77	2449.1	04.45	03.86	
ODOM: 39334	HT (grams)	001.24	014.68	2028.1	10.07	08.68	
	COMP (GPM)	000.61	009.35	0611.1	02.03	01.76	14.1
	HFET (GPM)	000.08	003.46	0424.9	02.70		20.60
RETEST	FTP CT (grams)	006.39	095.86	2329.5	11.64	10.58	
DATE: 6-27-79	CS (grams)	000.80	014.18	2441.1	04.78	04.34	
ODOM: 40020	HT (grams)	001.20	010.95	2044.6	10.24	09.37	
	COMP (GPM)	000.56	008.22	0614.4	02.08	01.90	14.1
	HFET (GPM)	000.06	000.51	0462.9	03.06		19.12

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0187.4	00.0	0898.1	0000	00.0
LOW	1857.6	01.8	0177.1	0100	02.0
IDLE	3520.2	03.9	0076.8	0230	03.8
HI	0138.5	00.0	0494.6	0020	00.0
LOW	0101.8	00.1	0067.3	0030	00.2
IDLE	0037.5	00.1	0038.6	0020	00.2
HI	0837.8	00.5	0706.7	0070	00.4
LOW	2279.0	02.4	0131.6	0150	02.4
IDLE	3957.0	04.7	0053.9	0280	04.7
HI	0149.3	00.0	0733.4	0030	00.1
LOW	0100.3	00.0	0240.8	0030	00.0
IDLE	0057.5	00.0	0131.6	0020	00.0
HI	0148.8	00.0	0505.7	0020	00.1
LOW	0075.4	00.0	0197.7	0010	00.0
IDLE	0038.7	00.0	0126.1	0010	00.0

APPENDIX C

EPA NO.: 52055 MAKE/MODEL: OLDS/VISTA CRUISER WGN ENG: 350-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	695	195	610	F								
DEQ CO (%)	5.8	0.4	5.8	F								
DEQ RPM	800	-	800	P	No Retest - Vehicle Dropped from Program							
DEQ QUEUE TIME	0 Minutes											
HTS HC (ppm)	170	30	190	-								
HTS CO (%)	0.5	0.0	0.9	-								
HTS NOX (ppm)	200	840	200	-								
HTS RPM	850	-	860	-								
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	71	30.15									
HTS	73	46	30.44									

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	510	(555)
DWELL	N/A	
TIMING	+19	(+20)
MECH ADVANCE	27	(29)
TOTAL ADVANCE	54	(53)
PROPANE IDLE CK	0	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Spk Plg Frng Volt.
Cyl. Power Dist.
EGR Hose Plugged

MAINTENANCE

MAINT TO PASS DEQ

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.94	213.25	2119.9	36.35	30.95	
DATE: 3-08-79	CS (grams)	016.77	213.87	2130.3	27.33	23.49	
ODOM: 41595	HT (grams)	009.62	104.35	1912.7	36.20	30.61	
	COMP (GPM)	004.00	048.67	0550.9	08.48	07.23	13.9
	HFET (GPM)	000.47	002.35	0448.0	10.45		19.57
MAINT RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0599.1	00.0	2436.8	0060	00.0
LOW	0773.5	00.0	2436.8	0080	00.0
IDLE	8058.5	07.2	0112.2	0590	07.3
HI					
LOW					
IDLE					
HI					
LOW					
IDLE					

EPA NO. 52055

EPA NO.: 52056 MAKE/MODEL: PLYMOUTH/FURY ENG: 360-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	130	40	115	P	45	15	60	P	75	30	60	P
DEQ CO (%)	3.6	0.1	2.0	F	0.7	0.0	0.0	P	2.1	0.1	1.5	F
DEQ RPM	675	-	675	P	1300	-	900	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				12 Minutes				4 Minutes			
HTS HC (ppm)	140	30	160	-	20	20	20	-	100	30	30	-
HTS CO (%)	1.2	0.5	0.0	-	0.0	0.0	0.3	-	2.1	0.2	0.0	-
HTS NOX (ppm)	80	360	80	-	80	300	70	-	80	210	50	-
HTS RPM	620	-	610	-	800	-	800	-	830	-	780	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	58	23	30.05		48	71	29.92		57	58	29.70	
HTS	75	29	30.03		75	40	29.85		66	57	29.62	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	550	(755)	800		760
DWELL	N/A		N/A		N/A
TIMING	+04	(+06)	+03		+04
MECH ADVANCE	16	(23)	18		17
TOTAL ADVANCE	40	(45)	38		40
PROPANE IDLE CK	200		110		270

DRIVEABILITY			
ENG STARTING	HARD	FALSE	GOOD
TRANSMISSION	OK	OK	SHIFTS HARD
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	SURGES, STUMBLES BACKFIRES	SURGES, STUMBLES BACKFIRES, STRETCHY	STUMBLES, BACKFIRES STRETCHY
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING

PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt. Air Filter - Cond. EGR	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR Air Filters - Cond.	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Spark Plugs Replaced Heat & Radiator Hoses
PERFORMED BY:	Other - Tune Up Specialist	Independent Repair Garage
COST:	$6.00	$60.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Engine Misfiring
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.77	190.57	2649.5	12.74	11.24	
DATE: 3-12-79	CS (grams)	004.00	110.20	2588.1	05.69	04.99	
	HT (grams)	003.15	058.11	2019.1	12.92	11.39	
ODOM: 70141	COMP (GPM)	001.68	030.04	0650.4	02.47	02.18	12.6
	HFET (GPM)	000.23	003.04	0440.4	05.38		19.89
MAINT RETEST	FTP CT (grams)	023.84	128.28	2959.1	12.56	10.87	
DATE: 3-20-79	CS (grams)	000.60	002.59	3060.9	06.37	05.58	
	HT (grams)	001.00	009.12	2300.7	13.92	12.13	
ODOM: 70220	COMP (GPM)	001.52	008.39	0752.6	02.63	02.29	11.5
	HFET (GPM)	000.08	000.11	0450.5	04.87		19.67
RETEST	FTP CT (grams)	010.26	155.84	2517.4	12.10	10.70	
DATE: 5-09-79	CS (grams)	002.80	081.68	2946.1	05.98	05.28	
	HT (grams)	002.06	043.20	2312.6	14.16	12.51	
ODOM: 71055	COMP (GPM)	001.12	023.11	0712.9	02.57	02.27	11.8
	HFET (GPM)	000.13	002.07	0446.4	05.69		19.70

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0233.3	00.0	2216.0	0020	00.0
LOW	0251.7	00.0	0649.8	0020	00.0
IDLE	1808.7	01.3	0074.5	0090	01.4
HI	0126.2	00.0	1783.9	0040	00.0
LOW	0095.7	00.0	0377.7	0050	00.0
IDLE	0426.0	00.0	0045.8	0040	00.0
HI	0195.2	00.0	2053.4	0030	00.0
LOW	0161.5	00.0	0519.8	0030	00.0
IDLE	0164.6	00.0	0119.4	0030	00.0

EPA NO. 52056

APPENDIX C

EPA NO.: 52057 MAKE/MODEL: DODGE/DART ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	135	185	145	P	70	140	125	P	25	75	15	P
DEQ CO (%)	4.9	1.6	3.8	F	2.0	0.1	0.1	P	0.0	0.0	0.0	P
DEQ RPM	850	-	850	P	800	-	800	P	750	-	750	P
DEQ QUEUE TIME	5 Minutes				10 Minutes				6 Minutes			
HTS HC (ppm)	170	50	110	-	40	20	30	-	80	60	80	-
HTS CO (%)	2.4	0.2	1.9	-	0.0	0.0	0.0	-	0.2	0.2	0.0	-
HTS NOX (ppm)	140	880	140	-	120	670	120	-	120	630	120	-
HTS RPM	800	-	790	-	700	-	700	-	700	-	700	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	62	31	30.15	57	43	29.85	55	56	29.95
HTS	76	31	30.12	75	37	29.81	74	39	29.90

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	760	(755)	690		700
DWELL	N/A		N/A		N/A
TIMING	+02	(000)	+02		+02
MECH ADVANCE	24	(21)	23		22
TOTAL ADVANCE	41	(38)	41		38
PROPANE IDLE CK	10		140		140
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		STUMBLES		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	EGR - Plugged Air Filter		Fast Idle Speed EGR - Plugged Air Filter		EGR - Plugged Air Filter

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Service Station	
COST:	$8.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.69	101.80	1676.3	30.33	25.72	
DATE: 3-13-79	CS (grams)	005.87	079.21	1598.7	21.55	18.27	
	HT (grams)	003.86	032.78	1423.4	32.06	27.18	
ODOM: 35677	COMP (GPM)	001.52	018.89	0417.5	07.05	05.98	19.6
	HFET (GPM)	000.25	001.37	0339.4	08.32		25.90
MAINT RETEST	FTP CT (grams)	004.01	063.78	1787.9	33.35	27.37	
DATE: 3-22-79	CS (grams)	000.74	000.84	1821.5	26.39	21.80	
	HT (grams)	001.70	004.34	1557.2	35.49	29.32	
ODOM: 36243	COMP (GPM)	000.46	004.10	0463.7	08.13	06.70	18.8
	HFET (GPM)	000.09	000.18	0360.0	09.22		24.59
RETEST	FTP CT (grams)	005.30	115.46	1731.9	29.23	25.67	
DATE: 5-09-79	CS (grams)	000.84	000.64	1822.6	25.05	21.77	
	HT (grams)	001.56	002.94	1523.2	32.68	28.41	
ODOM: 36838	COMP (GPM)	000.54	006.93	0458.1	07.50	06.53	18.8
	HFET (GPM)	000.11	000.06	0350.4	08.60		25.28

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0312.8	00.0	2397.4	0040	00.0
LOW	0579.0	00.0	2342.5	0060	00.0
IDLE	2515.3	02.1	0205.8	0140	02.3
HI	0140.1	00.0	2436.8	0040	00.0
LOW	0146.2	00.0	2296.0	0040	00.0
IDLE	0094.2	00.0	0350.0	0020	00.0
HI	0167.6	00.0	2436.8	0030	00.0
LOW	0210.5	00.0	2169.8	0040	00.0
IDLE	0170.7	00.0	0347.5	0030	00.0

EPA NO. 52057

APPENDIX C

EPA NO.: 52058 MAKE/MODEL: CADILLAC/DEVILLE ENG: 500-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	275	170	325	F	170	25	195	P	245	125	405	F
DEQ CO (%)	1.0	2.1	0.9	P	0.2	0.0	0.2	P	0.2	1.6	0.4	F
DEQ RPM	900	-	900	P	800	-	800	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	270	130	260	-	460	200	320	-	350	160	370	-
HTS CO (%)	0.9	2.4	0.8	-	0.3	2.6	0.5	-	0.7	3.8	0.7	-
HTS NOX (ppm)	130	210	130	-	120	280	110	-	150	210	140	-
HTS RPM	840	-	790	-	900	-	990	-	980	-	990	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	62	31	30.15	56	44	29.80	60	49	30.40
HTS	79	31	30.12	75	25	29.82	78	36	30.35

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(600)	650		640
DWELL	N/A		N/A		N/A
TIMING	+06	(+06)	+07		+07
MECH ADVANCE	17	(17)	15		16
TOTAL ADVANCE	43	(46)	45		44
PROPANE IDLE CK	80		20		80

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	None	None	None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	Poor Acceleration	Poor Acceleration
OWNER SATISFIED WITH VEH:	Most of the Time	Most of the Time

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	022.12	418.40	2465.2	07.88	06.75	
DATE: 3-13-79	CS (grams)	015.19	170.37	2602.1	14.88	12.74	
	HT (grams)	011.87	225.01	2125.2	10.38	08.88	
ODOM: 54214	COMP (GPM)	004.20	063.81	0649.8	03.22	02.76	11.6
	HFET (GPM)	001.88	052.58	0457.9	02.80		16.23
MAINT RETEST	FTP CT (grams)	019.44	315.26	2669.0	10.50	08.98	
DATE: 3-22-79	CS (grams)	012.19	127.32	2834.5	16.68	14.26	
	HT (grams)	011.26	169.68	2378.7	12.71	10.69	
ODOM: 54371	COMP (GPM)	003.60	047.95	0711.7	03.79	03.23	11.1
	HFET (GPM)	001.53	041.08	0501.7	03.01		15.53
RETEST	FTP CT (grams)	020.96	311.69	2529.5	09.64	08.60	
DATE: 5-12-79	CS (grams)	010.52	077.60	2684.0	13.45	12.00	
	HT (grams)	010.08	123.08	2193.0	10.04	08.90	
ODOM: 55857	COMP (GPM)	003.37	037.57	0669.6	03.11	02.77	12.0
	HFET (GPM)	001.43	027.49	0461.2	02.62		17.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2068.7	02.1	0869.5	0120	02.1
LOW	2640.8	01.9	0910.1	0160	01.8
IDLE	2292.0	00.2	0485.1	0150	00.3
HI	1441.6	01.4	0845.6	0000	01.4
LOW	2056.5	01.5	0864.7	0040	01.5
IDLE	1322.3	00.1	0635.5	0000	00.1
HI	1368.2	01.3	0630.7	0070	01.2
LOW	1680.2	00.7	0826.5	0110	00.8
IDLE	1068.4	00.1	0363.3	0090	00.1

EPA NO. 52058

APPENDIX C

EPA NO.: 52059 MAKE/MODEL: FORD/PINTO ENG: 171-2V TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	25	40	30	P	30	25	20	P	65	45	90	P
DEQ CO (%)	0.0	0.3	0.0	P	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1300	-	1300	F	850	-	850	P	700	-	700	P
DEQ QUEUE TIME	50 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	100	30	140	-	120	50	60	-	70	20	30	-
HTS CO (%)	0.0	0.1	0.0	-	0.1	0.1	0.0	-	0.0	0.1	0.0	-
HTS NOX (ppm)	80	130	100	-	80	200	80	-	80	160	70	-
HTS RPM	950	-	970	-	810	-	817	-	840	-	920	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	64	23	30.05		57	43	29.85		67	44	30.00	
HTS	77	29	29.97		75	25	29.82		88	33	29.91	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	720	(700)	690		670
DWELL	N/A		N/A		N/A
TIMING	+13	(+08)	+13		+13
MECH ADVANCE	27	(21)	30		28
TOTAL ADVANCE	30	(27)	26		27
PROPANE IDLE CK	210		60		0
DRIVEABILITY					
ENG STARTING	FALSE		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500		Ign. Timing @ Idle Mech. Adv. @ 2500 EGR		Ign. Timing @ Idle Mech. Adv. @ 2500 EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$25.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.72	096.23	1948.7	17.37	16.22	
DATE: 5-14-79	CS (grams)	002.90	054.77	2042.8	06.86	06.40	
	HT (grams)	003.24	051.45	1722.2	14.41	13.45	
ODOM: 28208	COMP (GPM)	001.02	016.73	0515.0	03.01	02.81	16.3
	HFET (GPM)	000.43	011.78	0405.2	05.44		20.86
MAINT RETEST	FTP CT (grams)	026.19	086.96	1942.9	23.14	19.12	
DATE: 5-22-79	CS (grams)	002.16	006.69	2101.7	10.95	09.10	
	HT (grams)	003.55	014.13	1731.2	19.28	16.03	
ODOM: 28308	COMP (GPM)	002.06	006.95	0523.2	04.25	03.53	16.4
	HFET (GPM)	000.22	002.31	0413.9	06.43		21.20
RETEST	FTP CT (grams)	005.48	059.65	1739.7	18.37	16.31	
DATE: 5-16-79	CS (grams)	002.15	019.98	1862.4	08.44	07.57	
	HT (grams)	004.18	022.35	1493.9	16.28	14.61	
ODOM: 29538	COMP (GPM)	000.92	007.78	0461.6	03.42	03.05	18.6
	HFET (GPM)	000.27	004.09	0377.7	04.84		23.04

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0429.1	00.2	1533.2	0040	00.2
LOW	0371.0	00.1	0640.3	0040	00.2
IDLE	0199.7	00.0	0153.2	0030	00.0
HI	0299.2	00.1	1927.2	0040	00.1
LOW	0351.2	00.0	0915.3	0050	00.1
IDLE	0143.2	00.0	0080.6	0030	00.0
HI	0315.9	00.1	1786.3	0020	00.1
LOW	0383.2	00.0	0957.8	0030	00.0
IDLE	0251.7	00.0	0138.9	0020	00.0

EPA NO. 52059

APPENDIX C

EPA NO.: 52060 MAKE/MODEL: FORD/MUSTANG II ENG: 140-2V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	30	45	35	P	95	75	100	P	70	55	65	P
DEQ CO (%)	0.4	0.1	0.3	P	0.0	0.2	0.0	P	0.3	0.0	0.1	P
DEQ RPM	1200	-	1200	F	600	-	600	P	1050	-	1050	P
DEQ QUEUE TIME	25 Minutes				5 Minutes				10 Minutes			
HTS HC (ppm)	180	50	170	-	210	50	140	-	60	30	40	-
HTS CO (%)	0.7	0.1	0.1	-	0.2	0.1	0.2	-	0.2	0.2	0.1	-
HTS NOX (ppm)	70	200	60	-	40	160	40	-	60	150	60	-
HTS RPM	790	-	920	-	770	-	800	-	970	-	990	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	39	30.32		60	35	30.30		64	45	30.20	
HTS	78	30	29.86		80	29	30.22		78	39	30.13	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	790	(855)	640	860	
DWELL	N/A		N/A	N/A	
TIMING	+07	(+06)	+07	+05	
MECH ADVANCE	28	(18)	23	19	
TOTAL ADVANCE	32	(42)	32	29	
PROPANE IDLE CK	250		450	50	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	HARD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		STUMBLE, BACKFIRE	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	EGR Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt.		Idle Speed EGR Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt.	Total Adv. @ 2500 EGR	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.10	070.67	1714.6	18.60	15.35	
DATE: 3-20-79	CS (grams)	003.97	021.43	1991.3	10.06	08.30	
	HT (grams)	003.93	019.31	1507.5	16.60	13.58	
ODOM: 62993	COMP (GPM)	001.18	008.38	0478.4	03.67	03.02	17.9
	HFET (GPM)	000.44	002.55	0321.5	05.03		27.13
MAINT RETEST	FTP CT (grams)	006.40	077.70	1677.9	16.69	15.09	
DATE: 3-23-79	CS (grams)	004.11	022.36	1909.5	08.55	07.73	
	HT (grams)	004.11	021.85	1438.2	13.81	12.48	
ODOM: 63049	COMP (GPM)	001.23	009.10	0460.1	03.15	02.84	18.5
	HFET (GPM)	000.45	002.57	0314.1	04.24		27.75
RETEST	FTP CT (grams)	005.84	057.02	1597.6	16.17	14.23	
DATE: 5-16-79	CS (grams)	002.88	019.93	1873.9	08.50	07.57	
	HT (grams)	002.48	015.72	1133.2	10.65	09.48	
ODOM: 64338	COMP (GPM)	000.91	007.12	0427.6	02.87	02.55	20.1
	HFET (GPM)	000.36	002.33	0303.8	04.25		28.73

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0617.5	00.1	1798.6	0040	00.1
LOW	0709.3	00.1	0845.0	0050	00.1
IDLE	0654.2	00.1	0073.3	0050	00.1
HI	0725.8	00.0	1502.1	0070	00.1
LOW	0805.3	00.1	0754.9	0080	00.1
IDLE	0631.0	00.1	0072.1	0070	00.1
HI	0649.3	00.1	1375.6	0030	00.1
LOW	0676.9	00.1	0742.9	0030	00.1
IDLE	0753.3	00.2	0084.0	0040	00.2

EPA NO. 52060

APPENDIX C

EPA NO.: 52061 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	245	40	235	P	130	40	160	P	185	35	135	P
DEQ CO (%)	6.3	0.4	5.8	F	1.3	0.5	1.8	P	1.4	0.2	1.3	P
DEQ RPM	800	-	800	P	875	-	900	P	950	-	950	P
DEQ QUEUE TIME	20 Minutes				60 Minutes				10 Minutes			
HTS HC (ppm)	330	60	100	-	80	10	90	-	200	120	270	-
HTS CO (%)	6.5	0.3	2.5	-	0.6	0.3	0.6	-	0.8	0.5	0.8	-
HTS NOX (ppm)	100	160	70	-	60	140	60	-	60	130	60	-
HTS RPM	820	-	970	-	900	-	950	-	800	-	870	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	29	29.98		49	78	29.75		65	43	30.15	
HTS	71	37	29.82		70	51	29.67		77	40	30.12	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	810	(855)	830	770	
DWELL	66	(57)	66	65	
TIMING	+12	(+12)	+12	+12	
MECH ADVANCE	28	(27)	23	22	
TOTAL ADVANCE	36	(41)	32	29	
PROPANE IDLE CK	0		40	90	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Fast Idle Speed Total Adv. @ 2500 Dwell		Fast Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt. Dwell	Fast Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt. Rotor Gap Volt. Dwell	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$11.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.26	097.02	1372.4	15.19	13.09	
DATE: 3-21-79	CS (grams)	003.75	049.23	1724.2	06.73	05.80	
ODOM: 50265	HT (grams)	003.83	043.17	1245.1	11.69	10.08	
	COMP (GPM)	001.26	015.41	0403.2	02.66	02.29	20.6
	HFET (GPM)	000.33	006.23	0261.6	03.62		32.55
MAINT RETEST	FTP CT (grams)	008.17	111.49	1265.8	13.58	11.64	
DATE: 3-30-79	CS (grams)	004.52	039.96	1569.3	05.48	04.65	
ODOM: 50386	HT (grams)	004.56	033.41	1183.8	11.46	09.75	
	COMP (GPM)	001.42	014.26	0371.8	02.38	02.03	22.2
	HFET (GPM)	000.36	005.01	0255.9	03.60		33.47
RETEST	FTP CT (grams)	016.82	134.09	1248.8	12.93	11.16	
DATE: 5-16-79	CS (grams)	009.81	043.98	1530.9	05.90	05.18	
ODOM: 50861	HT (grams)	018.11	057.15	1149.0	10.80	09.41	
	COMP (GPM)	003.65	017.89	0363.0	02.35	02.05	22.0
	HFET (GPM)	000.96	006.64	0264.4	03.93		31.91

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0805.3	00.5	1879.4	0040	00.5
LOW	0692.2	00.8	0630.7	0040	00.8
IDLE	0215.0	00.2	0060.1	0020	00.2
HI	0978.5	00.4	2034.0	0060	00.5
LOW	0862.3	00.6	0735.8	0060	00.6
IDLE	0944.9	00.7	0075.8	0100	00.6
HI	1171.3	00.5	1837.4	0070	00.5
LOW	0966.3	00.6	0680.0	0070	00.7
IDLE	1042.8	00.7	0102.5	0090	00.7

EPA NO. 52061

APPENDIX C

EPA NO.: 52062 MAKE/MODEL: BUICK/SKYLARK ENG: 231-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	45	15	20	P	75	45	85	P	90	40	110	P
DEQ CO (%)	0.6	0.0	0.0	P	0.0	0.0	0.0	P	1.3	0.1	1.1	F
DEQ RPM	1150	-	1200	F	650	-	650	P	750	-	750	P
DEQ QUEUE TIME	40 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	20	20	20	-	90	20	50	-	90	30	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	400	80	-	90	260	90	-	80	370	80	-
HTS RPM	1080	-	1090	-	690	-	700	-	650	-	680	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	55	49	29.75		57	54	30.00		66	54	30.10	
HTS	65	44	29.69		65	48	29.94		78	49	30.06	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	690	(700)	540		550
DWELL	N/A		N/A		N/A
TIMING	+12	(+12)	+11		+11
MECH ADVANCE	20	(24)	16		16
TOTAL ADVANCE	37	(42)	37		43
PROPANE IDLE CK	130		140		100
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLES		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. EGR - Plugged		Mech. Adv. @ 2500 Total Adv. @ 2500 EGR - Plugged Idle Speed		Mech. Adv. @ 2500 EGR - Plugged Idle Speed

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Owner	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Hard Starting Most of the Time
OWNER SATISFIED WITH VEH:	Yes	

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.14	111.40	1873.3	27.81	24.10	
DATE: 3-29-79	CS (grams)	005.21	052.06	2131.9	23.58	20.56	
ODOM: 43798	HT (grams)	002.66	021.93	1771.2	29.81	26.00	
	COMP (GPM)	001.31	014.99	0526.3	07.00	06.10	16.0
	HFET (GPM)	000.15	000.77	0401.1	09.62		22.02
MAINT RETEST	FTP CT (grams)	010.21	100.45	1901.6	29.54	25.37	
DATE: 4-09-79	CS (grams)	002.59	020.65	1945.8	22.48	19.51	
ODOM: 43997	HT (grams)	002.12	014.77	1699.4	29.07	24.97	
	COMP (GPM)	001.09	009.63	0497.6	06.90	05.95	17.2
	HFET (GPM)	000.14	000.38	0387.0	08.78		22.85
RETEST	FTP CT (grams)	007.12	089.50	1699.7	24.33	22.49	
DATE: 5-23-79	CS (grams)	002.54	021.36	1806.7	21.00	19.16	
ODOM: 45272	HT (grams)	002.34	012.27	1583.1	27.16	25.10	
	COMP (GPM)	000.93	008.91	0458.7	06.26	05.75	18.6
	HFET (GPM)	000.17	000.60	0352.3	08.01		25.07

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0219.7	00.0	2436.8	0010	00.0
LOW	0244.1	00.0	2436.8	0020	00.0
IDLE	1670.1	01.6	0163.1	0080	02.0
HI	0257.8	00.0	2397.4	0020	00.0
LOW	0190.5	00.0	2316.3	0040	00.0
IDLE	1444.7	01.0	0143.7	0090	01.3
HI	0190.5	00.0	2397.4	0020	00.0
LOW	0230.3	00.0	1974.9	0020	00.0
IDLE	1649.6	00.9	0146.1	0110	00.9

EPA NO. 52062

APPENDIX C

EPA NO.: 52063 MAKE/MODEL: CHRYSLER/CORDOBA ENG: 360-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	100	50	125	P	35	20	50	P	55	25	80	P
DEQ CO (%)	4.9	1.4	5.6	F	0.2	0.0	2.0	P	1.2	0.1	1.4	F
DEQ RPM	1100	-	1100	F	900	-	1100	P	900	-	900	P
DEQ QUEUE TIME	15 Minutes				0 Minutes				10 Minutes			
HTS HC.(ppm)	140	70	130	-	60	10	20	-	90	20	60	-
HTS CO (%)	5.2	1.2	4.9	-	0.5	0.0	0.0	-	1.6	0.3	1.1	-
HTS NOX (ppm)	140	230	140	-	100	310	80	-	120	300	100	-
HTS RPM	960	-	980	-	780	-	770	-	880	-	820	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	53	46	30.35		57	48	30.25		69	36	30.25	
HTS	65	44	30.28		74	30	30.16		80	29	30.22	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	870	(700)	720	820	
DWELL	N/A		N/A	N/A	
TIMING	+05	(+06)	+02	+02	
MECH ADVANCE	22	(23)	21	20	
TOTAL ADVANCE	45	(45)	42	42	
PROPANE IDLE CK	0		110	80	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	SURGES,STUMBLES		STUMBLES	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Idle Speed		Fast Idle Speed Ign. Timing @ Idle	Ign. Timing @ Idle Spk Plg Frng Volt.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$5.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.08	244.94	2358.2	13.58	11.74	
	CS (grams)	007.36	306.34	2794.3	06.39	05.63	
DATE: 4-03-79	HT (grams)	005.21	140.99	2170.2	09.57	08.36	
ODOM: 46958	COMP (GPM)	001.95	065.60	0672.7	02.36	02.06	11.3
	HFET (GPM)	000.26	007.20	0430.6	03.80		20.03
MAINT RETEST	FTP CT (grams)	009.94	216.86	2310.0	11.06	09.66	
	CS (grams)	002.56	067.77	2941.2	04.99	04.41	
DATE: 4-10-79	HT (grams)	002.57	026.40	2187.5	11.99	10.48	
ODOM: 47065	COMP (GPM)	001.11	023.48	0690.9	02.21	01.94	12.1
	HFET (GPM)	000.11	001.89	0441.1	03.71		19.95
RETEST	FTP CT (grams)	008.17	144.40	2403.0	08.01	08.15	
	CS (grams)	002.98	094.10	2866.9	04.13	04.20	
DATE: 6-01-79	HT (grams)	004.72	078.14	2175.2	06.50	06.67	
ODOM: 47894	COMP (GPM)	001.22	026.76	0685.3	01.50	01.53	12.1
	HFET (GPM)	000.11	002.47	0423.9	02.74		20.71

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0156.8	00.0	0702.4	0040	00.0
LOW	0126.2	00.0	0647.4	0000	00.0
IDLE	2298.1	04.9	0088.8	0130	04.1
HI	0184.4	00.0	0547.2	0020	00.0
LOW	0111.0	00.0	0413.5	0020	00.0
IDLE	1282.6	00.9	0100.7	0080	01.0
HI	0175.2	00.0	0411.1	0020	00.0
LOW	0092.6	00.1	0349.0	0010	00.0
IDLE	1196.9	00.9	0081.6	0070	00.8

EPA NO. 52063

APPENDIX C

EPA NO.: 52064 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	250	85	365	F	80	365	240	P	85	60	430	P
DEQ CO (%)	4.0	1.5	4.0	F	0.6	1.4	0.4	P	0.8	1.9	0.4	P
DEQ RPM	850	-	850	P	1075	-	1075	P	900	-	900	P
DEQ QUEUE TIME	50 Minutes				0 Minutes				5 Minutes			
HTS HC (ppm)	310	70	370	-	250	50	250	-	130	30	150	-
HTS CO (%)	3.7	1.1	4.1	-	0.3	1.0	0.2	-	0.4	0.9	0.4	-
HTS NOX (ppm)	60	100	70	-	50	120	50	-	65	150	80	-
HTS RPM	840	-	820	-	980	-	950	-	910	-	910	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	50	57	30.40		60	43	30.22		66	41	30.10	
HTS	70	40	30.30		72	34	30.14		74	40	30.03	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED		720	(855)			820				790		
DWELL		59	(57)			59				59		
TIMING		+14	(+12)			+15				+13		
MECH ADVANCE		23	(27)			26				22		
TOTAL ADVANCE		35	(41)			22				23		
PROPANE IDLE CK		0				140				130		
DRIVEABILITY												
ENG STARTING		GOOD				GOOD				GOOD		
TRANSMISSION		OK				OK				OK		
CLUTCH		OK				OK				OK		
BRAKES		OK				OK				OK		
OVERALL PERF		OK				OK				OK		
IDLE LIMITER CAPS:		MISSING				MISSING				MISSING		

PROBLEM AREAS:

Idle Speed	Ign. Timing @ Idle	Mech. Adv. @ 2500
Ign. Timing @ Idle	Total Adv. @ 2500	Total Adv. @ 2500
Mech. Adv. @ 2500	Spk Plg Frng Volt.	Spk Plg Frng Volt.
Total Adv. @ 2500		Dist. Pt. Volt. Drop
Dist. Pt. Volt. Drop		
Air Filters - Cond.		

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Engine Oil
	Adjusted Idle Speed	Replaced Oil Filter
PERFORMED BY:	Independent Repair Garage	Service Station
COST:	$11.00	$11.00
OWNER'S DRIVEABILITY EVAL:	Hard Starting, Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.81	125.32	1167.3	13.47	11.86	
DATE: 4-04-79	CS (grams)	008.59	164.36	1284.9	04.64	04.08	
	HT (grams)	006.24	072.17	1048.3	11.14	09.80	
ODOM: 48482	COMP (GPM)	002.12	034.58	0317.9	02.24	01.97	23.4
	HFET (GPM)	000.95	009.61	0237.7	03.92		34.67
MAINT RETEST	FTP CT (grams)	007.81	079.58	1138.9	14.81	12.66	
DATE: 4-21-79	CS (grams)	007.74	108.90	1333.8	05.17	04.45	
	HT (grams)	005.64	048.17	1056.0	11.51	09.91	
ODOM: 49140	COMP (GPM)	001.91	022.74	0323.4	02.41	02.07	24.3
	HFET (GPM)	000.84	008.16	0220.2	03.40		37.63
RETEST	FTP CT (grams)	008.30	078.07	1216.2	16.22	14.06	
DATE: 6-12-79	CS (grams)	007.32	117.97	1359.2	05.82	05.04	
	HT (grams)	006.22	051.86	1088.1	12.75	11.05	
ODOM: 51609	COMP (GPM)	001.92	024.15	0333.7	02.67	02.32	23.5
	HFET (GPM)	000.95	008.80	0236.4	04.09		35.01

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1885.2	00.5	2082.3	0100	00.7
LOW	2920.0	02.2	0532.8	0180	02.4
IDLE	1759.7	01.5	0060.1	0120	01.6
HI	1991.4	00.5	2201.4	0110	00.5
LOW	2606.5	01.5	0561.1	0160	01.2
IDLE	2586.6	00.2	0078.2	0280	00.2
HI	1765.0	00.4	2436.8	0110	00.4
LOW	2780.9	01.6	0677.5	0190	01.8
IDLE	1590.5	00.3	0080.6	0120	00.3

EPA NO. 52064

EPA NO.: 52065 MAKE/MODEL: PLYMOUTH/VALIANT ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	325	200	340	F	80	65	60	P	145	45	170	P
DEQ CO (%)	9.4	4.4	9.5	F	1.0	0.2	0.7	P	5.5	0.1	6.4	F
DEQ RPM	600	-	600	P	900	-	900	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	310	210	330	-	40	50	70	-	190	70	140	-
HTS CO (%)	9.0	4.2	9.0	-	0.1	0.4	0.4	-	3.1	1.0	3.5	-
HTS NOX (ppm)	120	220	130	-	140	540	120	-	160	300	140	-
HTS RPM	690	-	680	-	870	-	890	-	800	-	840	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	58	52	30.00		52	68	30.05		62	48	30.35	
HTS	70	42	29.97		68	42	29.94		77	35	30.30	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	600	(755)	810	670	
DWELL	N/A		N/A	N/A	
TIMING	000	(000)	+03	+02	
MECH ADVANCE	24	(21)	23	20	
TOTAL ADVANCE	38	(38)	29	22	
PROPANE IDLE CK	0		80	0	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	STUMBLES, STRETCHY		STUMBLES	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Idle Speed Air Filters - Bad		Cyl. Power Dist. Total Adv. @ 2500	Idle Speed Total Adv. @ 2500	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$7.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

EPA NO.: 52065 MAKE/MODEL : PLYMOUTH/VALIANT ENG: 225-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	75	40	90	P	65	55	85	P
DEQ CO (%)	1.2	0.0	0.8	P	0.6	0.6	0.8	P
DEQ RPM	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	4 Minutes				5 Minutes			
HTS HC (ppm)	20	20	60	-	60	80	50	-
HTS CO (%)	0.0	0.0	0.4	-	0.1	1.7	0.0	-
HTS NOX (ppm)	130	440	110	-	80	600	110	-
HTS RPM	800	-	900	-	670	-	710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	68	40	30.15	71	46	30.05
HTS	74	39	30.07	78	43	30.02

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	690	(755)	700
DWELL	N/A		N/A
TIMING	+02	(000)	+03
MECH ADVANCE	21	(21)	21
TOTAL ADVANCE	36	(38)	39
PROPANE IDLE CK	40		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES	SURGES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt. None

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
		None
	Regapped Spark Plugs	
	Adjusted Carburetor	
	Adjusted Choke	
	Adjusted Idle Speed	
	Adjusted Timing	
PERFORMED BY:	HTS	
COST:	None	
MANHOURS:	2 Hours	
OWNER'S DRIVEABILITY EVAL:	N/A	No Major Problems
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.43	268.35	1728.7	13.26	11.28	
DATE: 4-09-79	CS (grams)	019.18	416.18	1411.6	05.16	04.39	
ODOM: 72612	HT (grams)	013.79	263.04	1426.9	10.10	08.59	
	COMP (GPM)	004.78	090.87	0395.8	02.22	01.88	16.0
	HFET (GPM)	002.75	067.00	0344.5	02.41		19.34
MAINT RETEST	FTP CT (grams)	008.43	121.25	1944.1	10.43	09.38	
DATE: 4-12-79	CS (grams)	003.91	044.80	1920.1	09.30	08.37	
ODOM: 72844	HT (grams)	002.83	024.89	1681.6	11.55	10.40	
	COMP (GPM)	001.22	014.82	0495.3	02.72	02.44	17.0
	HFET (GPM)	000.28	003.50	0410.1	02.60		21.29
RETEST	FTP CT (grams)	011.01	224.28	1846.0	09.33	08.73	
DATE: 6-08-79	CS (grams)	006.27	170.75	1757.4	09.65	08.96	
ODOM: 75235	HT (grams)	004.39	083.52	1595.8	11.23	10.43	
	COMP (GPM)	001.80	041.97	0461.4	02.67	02.49	16.6
	HFET (GPM)	000.30	004.18	0407.6	02.63		21.36
HTS MAINT RETEST	FTP CT (grams)	008.61	076.96	1855.5	19.59	17.20	
DATE: 6-13-79	CS (grams)	001.89	018.64	1758.7	20.54	17.91	
ODOM: 75284	HT (grams)	002.57	018.81	1580.7	22.56	19.68	
	COMP (GPM)	000.94	008.33	0461.0	05.58	04.87	18.6
	HFET (GPM)	000.24	001.73	0389.8	05.59		22.55
RETEST	FTP CT (grams)	011.20	160.13	1718.3	14.08	14.85	
DATE: 7-08-79	CS (grams)	004.26	045.67	1727.8	16.59	17.50	
ODOM: 76016	HT (grams)	003.48	024.00	1564.1	17.71	18.69	
	COMP (GPM)	001.47	017.09	0447.8	04.37	04.61	18.5
	HFET (GPM)	000.33	003.10	0396.0	04.20		22.06

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2836.5	02.8	1007.9	0080	02.7
LOW	3730.3	03.2	0602.1	0180	03.0
IDLE	6061.0	08.6	0064.9	0240	07.8
HI	0303.7	00.0	0876.6	0030	00.0
LOW	0300.6	00.0	1163.1	0040	00.0
IDLE	0909.4	00.2	0253.5	0080	00.3
HI	0201.3	00.0	0854.7	0010	00.0
LOW	0314.5	00.0	1480.7	0030	00.0
IDLE	3616.9	05.2	0107.3	1060	04.9
HI	0213.5	00.0	1995.1	0040	00.0
LOW	0345.1	00.0	2436.8	0050	00.0
IDLE	0201.3	00.0	0376.7	0030	00.0
HI	0280.3	00.0	1346.2	0040	00.0
LOW	0390.4	00.0	2396.8	0050	00.0
IDLE	1136.8	00.2	0226.3	0100	00.3

EPA NO 52065

EPA NO.: 52066 MAKE/MODEL: PONTIAC/GRANVILLE ENG: 455-4V TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	1055	945	655	F	80	105	115	P	60	100	75	P
DEQ CO (%)	1.3	2.5	2.3	F	0.0	2.1	0.0	P	0.0	3.0	0.1	P
DEQ RPM	900	-	900	P	825	-	825	P	900	-	1000	P
DEQ QUEUE TIME	5 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	570	1550	770	-	430	90	360	-	380	140	430	-
HTS CO (%)	0.9	0.3	0.0	-	0.0	0.7	0.0	-	0.0	3.1	0.0	-
HTS NOX (ppm)	80	170	70	-	80	180	80	-	110	200	120	-
HTS RPM	800	-	800	-	850	-	860	-	900	-	900	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	56	56	30.30		52	49	30.00		73	38	30.15	
HTS	70	57	30.24		73	29	29.97		84	37	30.12	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	590		(655)		670				660			
DWELL	N/A				N/A				N/A			
TIMING	+16		(+16)		+15				+16			
MECH ADVANCE	23		(24)		23				24			
TOTAL ADVANCE	47		(49)		47				48			
PROPANE IDLE CK	100				170				140			
DRIVEABILITY												
ENG STARTING	GOOD				GOOD				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	OK				OK				OK			
OVERALL PERF	OK				OK				OK			
IDLE LIMITER CAPS:	MISSING				MISSING				MISSING			
PROBLEM AREAS:	Fast Idle Speed				Fast Idle Speed				None			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filter Replaced PCV Adjusted Timing, Idle Speed Adjusted Carburetor	None
PERFORMED BY:	Independent Repair Garage	
COST:	$65.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	055.49	242.04	2561.7	13.70	12.17	
DATE: 4-05-79	CS (grams)	044.01	217.68	2724.2	06.08	05.40	
	HT (grams)	034.69	132.24	2320.5	15.73	13.83	
ODOM: 44082	COMP (GPM)	011.69	052.95	0686.5	02.79	02.47	11.0
	HFET (GPM)	007.95	024.55	0529.6	05.16		14.95
MAINT RETEST	FTP CT (grams)	018.87	236.96	2535.4	12.34	10.49	
DATE: 4-17-79	CS (grams)	011.84	221.76	2858.3	06.19	05.30	
	HT (grams)	012.95	169.63	2354.3	14.58	12.48	
ODOM: 44250	COMP (GPM)	003.65	056.05	0705.4	02.64	02.26	11.0
	HFET (GPM)	002.20	049.47	0474.8	03.97		15.85
RETEST	FTP CT (grams)	014.47	239.23	2504.6	10.59	10.52	
DATE: 6-06-79	CS (grams)	011.59	200.42	2767.7	05.17	05.10	
	HT (grams)	013.64	180.26	2281.7	13.36	13.07	
ODOM: 45175	COMP (GPM)	003.41	054.14	0686.0	02.31	02.28	11.3
	HFET (GPM)	002.22	059.09	0449.4	03.08		16.14

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	7988.5	00.6	1483.1	0820	00.6
LOW	5287.5	02.4	0163.1	0420	02.5
IDLE	8488.6	00.6	0061.2	0850	00.7
HI	2037.3	01.5	1400.6	0150	01.6
LOW	2370.8	02.5	0158.3	0180	02.6
IDLE	0620.5	00.0	0197.1	0090	00.0
HI	1934.1	01.9	0941.1	0100	01.9
LOW	2328.7	02.4	0153.2	0140	02.4
IDLE	0912.4	00.0	0201.0	0080	00.0

EPA NO. 52066

APPENDIX C

EPA NO.: 52067 MAKE/MODEL: FORD/PINTO WGN ENG: 171-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	400	70	400	F	35	25	50	P	25	20	30	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	850	-	875	P	900	-	900	P	900	-	950	P
DEQ QUEUE TIME	5 Minutes				7 Minutes				20 Minutes			
HTS HC (ppm)	1170	70	940	-	120	50	50	-	50	20	30	-
HTS CO (%)	0.1	0.1	0.1	-	1.6	0.2	0.1	-	0.8	0.1	0.0	-
HTS NOX (ppm)	100	180	100	-	80	170	70	-	70	250	70	-
HTS RPM	780	-	800	-	850	-	830	-	890	-	910	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	58	54	30.00	51	55	30.00	72	62	30.22
HTS	70	44	29.93	69	39	29.94	73	57	30.07

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(700)	680	670	
DWELL	N/A		N/A	N/A	
TIMING	+09	(+08)	+08	+08	
MECH ADVANCE	22	(21)	23	23	
TOTAL ADVANCE	35	(34)	36	25	
PROPANE IDLE CK	130		0	0	
DRIVEABILITY					
ENG STARTING	GOOD		HARD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		STUMBLES, STRETCHY	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Idle Speed Cyl. Power Dist. EGR - Plugged Spk Plg Frng. Volt.		EGR - Plugged	EGR - Plugged Spk Plg Frng. Volt.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Repaired Carburetor Replaced Heat Stove Pipe Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$35.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.16	097.43	1937.1	24.67	21.14	
DATE: 4-07-79	CS (grams)	004.94	032.95	2091.4	13.02	11.27	
ODOM: 43546	HT (grams)	006.67	023.14	1705.9	23.50	20.34	
	COMP (GPM)	001.75	011.74	0519.6	04.94	04.26	16.3
	HFET (GPM)	000.46	003.72	0397.4	06.28		21.91
MAINT RETEST	FTP CT (grams)	007.48	093.50	1847.1	23.19	19.59	
DATE: 4-18-79	CS (grams)	002.41	012.66	1963.7	12.74	10.76	
ODOM: 43823	HT (grams)	003.50	019.64	1624.7	21.99	18.45	
	COMP (GPM)	001.02	008.54	0491.2	04.70	03.96	17.5
	HFET (GPM)	000.42	003.01	0385.7	06.39		22.64
RETEST	FTP CT (grams)	008.96	107.33	1916.8	22.63	19.88	
DATE: 6-06-79	CS (grams)	002.41	018.17	2102.8	12.18	10.77	
ODOM: 44547	HT (grams)	003.40	021.11	1685.5	22.79	20.68	
	COMP (GPM)	001.09	010.18	0518.4	04.65	04.15	16.5
	HFET (GPM)	000.37	003.02	0365.0	06.31		23.91

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0609.6	00.1	1757.6	0060	00.2
LOW	0741.1	00.1	0891.0	0080	00.1
IDLE	0487.2	00.0	0115.0	0060	00.1
HI	0715.4	00.1	1975.7	0140	00.1
LOW	0635.8	00.1	1111.9	0140	00.1
IDLE	0461.4	00.0	0092.8	0120	00.1
HI	0568.5	00.1	1764.6	0050	00.2
LOW	0580.7	00.1	0961.4	0060	00.1
IDLE	0427.7	00.0	0100.0	0050	00.0

EPA NO. 52067

APPENDIX C

EPA NO.: 52068 MAKE/MODEL: CHEV/MALIBU WGN ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	175	75	205	P	55	25	60	P	25	20	40	P
DEQ CO (%)	3.9	1.3	3.7	F	0.0	0.0	0.0	P	0.0	0.1	0.0	P
DEQ RPM	1000	-	1000	P	900	-	900	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	200	50	190	-	120	10	110	-	150	20	90	-
HTS CO (%)	2.6	0.0	2.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	160	100	-	60	210	70	-	70	250	80	-
HTS RPM	960	-	950	-	850	-	820	-	810	-	850	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	58	51	30.00		52	53	30.00		68	42	30.25	
HTS	68	48	29.94		73	35	29.93		83	32	30.21	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	630	(600)	590	550	
DWELL	N/A		N/A	N/A	
TIMING	+07	(+06)	+07	+07	
MECH ADVANCE	20	(21)	21	21	
TOTAL ADVANCE	39	(39)	38	38	
PROPANE IDLE CK	40		240	170	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	STUMBLES		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Air Filters		EGR	EGR	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Repaired Carburetor	Replaced Valve Seals
	Replaced Spark Plugs	
	Replaced Air Filter	
	Replaced Engine Oil & Filter	
	Replaced Fuel Filter, EFE Valve	
	Adjusted Choke,Timing,Idle Speed	
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$120.00	$87.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.19	178.26	2306.9	13.33	11.27	
DATE: 4-07-79	CS (grams)	008.62	238.14	2410.5	05.39	04.56	
	HT (grams)	005.33	099.71	2113.3	11.32	09.66	
ODOM: 40969	COMP (GPM)	002.14	049.55	0614.3	02.34	01.99	12.7
	HFET (GPM)	000.22	004.74	0482.4	03.15		18.08
MAINT RETEST	FTP CT (grams)	006.74	095.83	2317.7	22.99	19.60	
DATE: 4-18-79	CS (grams)	000.67	007.11	2553.6	14.11	11.83	
	HT (grams)	001.86	015.67	2102.5	22.76	19.10	
ODOM: 41174	COMP (GPM)	000.62	007.63	0633.2	04.93	04.15	13.7
	HFET (GPM)	000.07	001.11	0473.3	06.24		18.66
RETEST	FTP CT (grams)	005.14	084.15	2307.2	18.67	16.75	
DATE: 6-09-79	CS (grams)	000.71	003.67	2536.3	10.68	09.58	
	HT (grams)	001.13	008.51	2092.0	17.85	16.20	
ODOM: 42411	COMP (GPM)	000.48	005.96	0629.4	03.85	03.47	13.8
	HFET (GPM)	000.06	000.67	0478.8	05.03		18.47

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0124.8	00.0	1058.5	0000	00.0
LOW	0452.2	00.5	0221.4	0020	00.4
IDLE	2187.2	02.9	0092.8	0140	02.6
HI	0085.0	00.0	2247.5	0040	00.0
LOW	0082.0	00.0	1094.9	0035	00.0
IDLE	0051.4	00.0	0211.7	0025	00.0
HI	0127.9	00.0	1621.5	0000	00.0
LOW	0115.6	00.0	0721.2	0010	00.0
IDLE	0078.9	00.0	0158.3	0000	00.0

EPA NO. 52068

APPENDIX C

EPA NO.: 52069 MAKE/MODEL: BUICK/SKYLARK ENG: 231-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	120	80	148	P	75	50	80	P	100	50	70	P
DEQ CO (%)	4.9	0.8	4.6	F	1.0	0.1	0.8	P	1.7	0.2	1.6	F
DEQ RPM	175	-	175	F	1100	-	1100	P	1175	-	1200	F
DEQ QUEUE TIME	15 Minutes				0 Minutes				10 Minutes			
HTS HC (ppm)	170	30	170	-	50	20	60	-	100	20	100	-
HTS CO (%)	3.9	0.2	4.2	-	0.0	0.0	0.1	-	1.1	0.0	1.3	-
HTS NOX (ppm)	120	360	120	-	120	360	130	-	120	440	120	-
HTS RPM	1140	-	1170	-	920	-	1030	-	1160	-	1140	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	52	30.00		53	53	30.00		66	61	30.15	
HTS	69	43	29.94		69	33	29.94		76	60	30.09	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	700	(700)	680		710
DWELL	N/A		N/A		N/A
TIMING	+06	(+12)	+07		+11
MECH ADVANCE	13	(24)	13		14
TOTAL ADVANCE	31	(42)	31		32
PROPANE IDLE CK	0		150		80

DRIVEABILITY			
ENG STARTING	GOOD	HARD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	STUMBLES,ENG.MISFIR	OK
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR - Plugged	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR - Plugged	Mech. Adv. @ 2500 Total Adv. @ 2500 EGR - Plugged

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Dist. Cap & Rotor Replaced Air Filter Replaced Engine Oil & Oil Filter Replaced Fuel Filter Adjusted Carburetor, Choke Adjusted Idle Speed & Timing
PERFORMED BY:	Service Station	Service Station
COST:	$5.00	$35.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.63	198.77	1793.6	25.08	21.87	
DATE: 4-07-79	CS (grams)	010.44	315.43	1790.4	14.12	12.40	
	HT (grams)	006.50	146.49	1587.0	22.93	19.92	
ODOM: 57502	COMP (GPM)	002.67	064.59	0462.2	05.06	04.42	15.5
	HFET (GPM)	000.40	011.03	0364.0	05.63		23.18
MAINT RETEST	FTP CT (grams)	009.41	156.01	1882.0	24.76	20.64	
DATE: 4-20-79	CS (grams)	008.08	141.25	2071.7	18.32	15.37	
	HT (grams)	008.24	085.27	1712.5	23.19	19.76	
ODOM: 57834	COMP (GPM)	002.24	034.26	0514.3	05.63	04.73	15.4
	HFET (GPM)	000.50	012.02	0367.1	05.29		22.88
RETEST	FTP CT (grams)	011.07	155.66	1754.9	21.77	19.88	
DATE: 6-06-79	CS (grams)	007.50	145.02	1998.5	17.28	15.79	
	HT (grams)	004.57	064.48	1683.5	25.01	22.68	
ODOM: 60338	COMP (GPM)	001.98	033.16	0495.0	05.45	04.97	16.0
	HFET (GPM)	000.20	004.22	0313.4	05.53		27.66

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0618.7	00.1	2115.7	0060	00.2
LOW	2344.0	02.6	0972.1	0180	02.6
IDLE	2830.0	05.0	0103.1	0200	04.8
HI	0547.1	00.1	2436.8	0070	00.0
LOW	2285.2	01.3	1689.4	0150	01.2
IDLE	2404.5	01.6	0330.6	0160	01.5
HI	0381.8	00.0	2436.8	0040	00.1
LOW	1798.6	01.0	1434.6	0140	01.0
IDLE	2343.3	01.7	0415.5	0170	01.7

EPA NO. 52069

APPENDIX C

EPA NO.: 52070 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	165	160	150	P	30	20	40	P	65	35	55	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P	0.8	0.0	0.4	P
DEQ RPM	1200	-	1200	F	900	-	900	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				0 Minutes				0 Minutes			
HTS HC (ppm)	60	120	120	-	70	40	90	-	30	20	40	-
HTS CO (%)	0.0	0.0	0.0	-	0.1	0.2	0.2	-	0.1	0.0	0.4	-
HTS NOX (ppm)	100	320	90	-	60	250	70	-	60	300	80	-
HTS RPM	1170	-	1160	-	850	-	890	-	900	-	930	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	53	30.35		52	54	30.10		68	37	30.09	
HTS	68	42	30.26		68	53	30.04		76	34	30.02	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	670	(555)	600	600	
DWELL	N/A		N/A	N/A	
TIMING	+10	(+10)	+10	+09	
MECH ADVANCE	23	(18)	23	23	
TOTAL ADVANCE	47	(36)	56	37	
PROPANE IDLE CK	330		190	130	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt. Cyl. Power Dist.		Fast Idle Speed Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist.	Mech. Adv. @ 2500 Total Adv. @ 2500	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$5.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Dieseling
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.85	044.92	2231.6	16.68	14.33	
DATE: 4-10-79	CS (grams)	004.31	000.29	2521.8	10.53	08.98	
	HT (grams)	003.93	003.83	1968.9	14.74	12.66	
ODOM: 70791	COMP (GPM)	001.50	002.91	0613.8	03.48	02.98	14.2
	HFET (GPM)	000.29	000.08	0383.4	04.75		23.07
MAINT RETEST	FTP CT (grams)	008.65	091.86	1985.2	14.43	12.04	
DATE: 4-17-79	CS (grams)	001.37	011.55	2228.1	08.01	06.73	
	HT (grams)	002.46	016.81	1715.9	12.59	10.72	
ODOM: 70996	COMP (GPM)	000.87	008.08	0541.3	02.85	02.40	15.9
	HFET (GPM)	000.11	000.38	0357.8	04.38		24.72
RETEST	FTP CT (grams)	006.34	109.95	2070.5	17.06	14.84	
DATE: 6-12-79	CS (grams)	002.87	043.75	2131.0	07.98	07.07	
	HT (grams)	002.75	025.36	1775.5	14.52	12.86	
ODOM: 73212	COMP (GPM)	000.96	014.06	0537.8	03.15	02.77	15.8
	HFET (GPM)	000.16	001.24	0387.3	05.31		22.75

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0143.2	00.0	1742.8	0040	00.0
LOW	0522.6	00.0	1412.8	0100	00.0
IDLE	1104.0	00.0	0680.0	0190	00.0
HI	0170.7	00.0	2364.0	0040	00.0
LOW	0167.6	00.0	1315.7	0040	00.0
IDLE	1584.4	01.0	0192.2	0140	01.0
HI	0443.0	00.0	2157.7	0050	00.0
LOW	0335.9	00.0	1199.2	0050	00.0
IDLE	1306.0	01.2	0112.2	0090	01.4

EPA NO. 52070

APPENDIX C

EPA NO.: 52071 MAKE/MODEL: AMC/PACER ENG: 258-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	110	80	140	P	45	50	85	P	50	40	80	P
DEQ CO (%)	4.8	2.1	4.7	F	0.9	1.3	1.2	P	1.1	1.1	1.2	P
DEQ RPM	700	-	700	P	800	-	810	P	750	-	750	P
DEQ QUEUE TIME	5 Minutes				0 Minutes				5 Minutes			
HTS HC (ppm)	170	60	160	-	60	20	60	-	80	50	90	-
HTS CO (%)	4.2	0.4	4.7	-	0.5	0.2	0.6	-	0.8	0.7	0.8	-
HTS NOX (ppm)	130	310	150	-	140	220	160	-	160	480	160	-
HTS RPM	670	-	670	-	680	-	700	-	730	-	680	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	55	48	30.35		53	53	30.00		66	44	30.25	
HTS	66	44	30.24		69	39	29.94		78	43	30.22	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	580	(550)	550		610
DWELL	N/A		N/A		N/A
TIMING	+04	(+03)	+04		+03
MECH ADVANCE	17	(18)	18		16
TOTAL ADVANCE	32	(34)	34		34
PROPANE IDLE CK	0		40		40
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		STUMBLES
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	None		None		None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Service Station	
COST:	$7.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.98	199.86	1946.2	06.14	05.40	
DATE: 4-10-79	CS (grams)	007.21	224.60	1795.2	05.21	04.59	
	HT (grams)	007.03	114.40	1643.1	06.15	05.41	
ODOM: 38440	COMP (GPM)	001.95	050.10	0475.8	01.51	01.33	15.8
	HFET (GPM)	001.13	022.88	0389.7	01.79		20.66
MAINT RETEST	FTP CT (grams)	007.19	172.38	1930.6	06.39	05.47	
DATE: 4-18-79	CS (grams)	006.19	134.37	1900.4	06.32	05.40	
	HT (grams)	005.83	081.55	1711.2	06.78	05.80	
ODOM: 38678	COMP (GPM)	001.68	034.00	0494.1	01.72	01.47	16.0
	HFET (GPM)	001.03	020.43	0394.7	01.91		20.62
RETEST	FTP CT (grams)	007.84	197.80	1995.7	06.42	05.55	
DATE: 6-12-79	CS (grams)	006.69	158.55	1862.3	05.65	04.88	
	HT (grams)	006.72	090.39	1668.9	06.58	05.68	
ODOM: 40913	COMP (GPM)	001.85	039.35	0489.6	01.62	01.40	15.9
	HFET (GPM)	000.98	020.67	0401.2	01.95		20.31

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0710.5	00.2	0544.8	0030	00.2
LOW	1931.1	01.9	0745.3	0120	01.9
IDLE	2512.3	04.5	0100.7	0160	04.4
HI	0614.4	00.2	0573.2	0050	00.1
LOW	2037.3	01.5	0932.3	0150	01.6
IDLE	1933.3	01.7	0172.8	0150	01.8
HI	0687.8	00.3	0599.9	0040	00.3
LOW	2006.7	01.7	0852.3	0130	01.8
IDLE	1716.0	01.6	0158.3	0120	01.6

EPA NO. 52071

APPENDIX C

EPA NO.: 52072 MAKE/MODEL: AUDI/FOX WGN ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	130	65	140	P	95	30	100	P	95	35	110	P
DEQ CO (%)	2.3	0.2	2.3	P	1.6	0.1	1.5	P	1.4	0.1	1.4	P
DEQ RPM	1800	-	1800	F	1200	-	1250	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				15 Minutes				15 Minutes			
HTS HC (ppm)	180	80	170	-	130	20	110	-	70	20	80	-
HTS CO (%)	2.2	0.4	2.1	-	0.9	0.0	1.0	-	0.5	0.1	0.5	-
HTS NOX (ppm)	130	170	130	-	90	130	120	-	70	140	80	-
HTS RPM	1700	-	1720	-	1060	-	1110	-	840	-	840	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	56	51	30.15		59	66	30.05		63	52	30.25	
HTS	70	36	30.10		68	58	29.96		73	42	30.18	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	1550	(875)	1060	810
DWELL	43	(50)	54	51
TIMING	+29	(-03)	+08	000
MECH ADVANCE	26	(24)	09	18
TOTAL ADVANCE	40	(30)	28	19
PROPANE IDLE CK	20		510	90
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	OK		OK	OK
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	N/A		N/A	N/A
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Total Adv. @ 2500 Spk Plg Frng Volt. Dwell		Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Spk Plg Frng Volt. Rotor Gap Volt. Dwell	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjustea Timing Adjusted Dwell	Replaced Spark Plugs Adjusted Carburetor Adjusted Idle Speed Adjusted Timing Adjusted Dwell Repaired Mech. Adv. & Dist.
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$15.00	$89.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.16	031.55	1227.5	11.90	10.31		HI	0703.1	00.1	1689.4	0060	00.1
DATE: 4-19-79	CS (grams)	003.62	036.15	1476.6	08.33	07.09		LOW	0813.3	00.1	0903.2	0070	00.1
	HT (grams)	003.90	019.33	1106.2	12.31	10.48		IDLE	2392.3	01.4	0136.4	0140	01.4
ODOM: 57108	COMP (GPM)	001.02	008.10	0351.3	02.73	02.33	24.1						
	HFET (GPM)	000.33	002.79	0224.6	02.59		38.55						
MAINT RETEST	FTP CT (grams)	003.35	025.07	1537.1	09.12	08.28		HI	0121.7	00.1	0903.2	0010	00.0
DATE: 5-05-79	CS (grams)	001.75	019.85	1808.0	06.17	05.61		LOW	0262.5	00.1	0427.6	0030	00.0
	HT (grams)	002.69	012.44	1381.2	08.96	08.13		IDLE	1553.8	00.9	0104.9	0100	00.8
ODOM: 57510	COMP (GPM)	000.63	005.03	0434.2	02.03	01.84	20.0						
	HFET (GPM)	000.10	002.11	0279.1	01.68		31.36						
RETEST	FTP CT (grams)	004.39	021.60	1327.3	10.53	09.58		HI	0545.3	00.1	1122.5	0030	00.1
DATE: 6-21-79	CS (grams)	008.55	012.02	1485.2	06.11	05.56		LOW	0545.3	00.1	0506.6	0040	00.1
	HT (grams)	011.07	008.74	1115.6	11.08	10.07		IDLE	9992.3	00.4	0105.5	1500	00.4
ODOM: 59548	COMP (GPM)	002.23	003.51	0358.9	02.26	02.06	23.9						
	HFET (GPM)	000.27	001.27	0241.2	02.27		36.33						

EPA NO. 52072

APPENDIX C

EPA NO.: 61051 MAKE/MODEL: CHEV/NOVA ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	170	95	60	P	275	65	225	F
DEQ CO (%)	1.2	8.0	1.0	P	2.6	0.1	2.7	F
DEQ RPM	1000	-	1000	P	1050	-	1050	P
DEQ QUEUE TIME	30 Minutes				0 Minutes			
HTS HC (ppm)	80	40	140	-	230	90	250	-
HTS CO (%)	0.0	0.0	0.2	-	1.2	0.5	1.8	-
HTS NOX (ppm)	80	210	60	-	60	170	70	-
HTS RPM	890	-	980	-	940	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	40	30.32	59	70	30.00
HTS	75	40	30.44	73	50	29.90

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(600)	620
DWELL	N/A		N/A
TIMING	+07	(+08)	+06
MECH ADVANCE	21	(22)	16
TOTAL ADVANCE	44	(40)	27
PROPANE IDLE CK	60		30

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None None

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.52	120.92	1983.0	12.11	10.33	
DATE:3-08-79	CS (grams)	007.60	085.36	2113.1	05.05	04.30	
ODOM:55941	HT (grams)	004.55	040.16	1822.7	10.23	08.72	
	COMP (GPM)	001.85	021.37	0534.0	02.15	01.83	15.5
	HFET (GPM)	000.24	002.31	0401.0	02.61		21.87
RETEST	FTP CT (grams)	009.45	132.08	1949.5	13.52	12.58	
DATE:5-05-79	CS (grams)	008.72	135.21	2107.4	05.71	05.21	
ODOM:59890	HT (grams)	006.05	083.69	1758.1	10.83	09.83	
	COMP (GPM)	002.16	031.96	0526.4	02.36	02.16	15.2
	HFET (GPM)	000.33	004.48	0406.0	02.97		21.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0911.2	00.3	0973.6	0120	00.4
LOW	0339.0	00.0	0381.5	0060	00.1
IDLE	2643.2	01.4	0107.3	0160	01.4
HI	0657.2	00.1	1313.3	0120	00.1
LOW	0458.3	00.0	0354.8	0060	00.0
IDLE	2771.7	02.0	0141.3	0210	02.0

EPA NO. 61051

APPENDIX C

EPA NO.: 61052 MAKE/MODEL: CHEV/NOVA ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	60	100	P	110	30	110	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	700	P	750	-	750	P
DEQ QUEUE TIME	10 Minutes				4 Minutes			
HTS HC (ppm)	280	30	200	-	170	40	220	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.2	0.0	-
HTS NOX (ppm)	40	240	50	-	80	210	80	-
HTS RPM	660	-	660	-	780	-	710	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	60	53	30.10		64	42	30.35	
HTS	71	48	30.04		82	30	30.38	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	490	(600)	620
DWELL	N/A		N/A
TIMING	+04	(+08)	+04
MECH ADVANCE	16	(22)	17
TOTAL ADVANCE	35	(40)	35
PROPANE IDLE CK	310		200

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	008.78	100.91	2208.8	16.64	14.71		HI	0389.3	00.1	0750.1	0000	00.2
DATE: 3-16-79		CS (grams)	001.95	016.11	2201.8	06.56	05.84		LOW	0202.7	00.0	0375.3	0000	00.0
		HT (grams)	002.58	032.85	1889.4	11.47	10.14		IDLE	0159.9	00.0	0069.7	0000	00.0
ODOM: 53992		COMP (GPM)	000.96	010.43	0563.8	02.70	02.39	15.2						
	HFET	(GPM)	000.29	005.27	0450.7	03.47		19.28						
RETEST	FTP	CT (grams)	006.15	060.11	2002.9	13.97	12.29		HI	0314.5	00.0	1235.6	0020	00.0
DATE: 5-12-79		CS (grams)	001.79	007.39	2147.8	06.22	05.48		LOW	0253.3	00.0	0483.4	0020	00.0
		HT (grams)	002.43	019.50	1800.6	11.24	09.89		IDLE	0250.3	00.0	0102.5	0020	00.0
ODOM: 56680		COMP (GPM)	000.78	005.91	0538.0	02.49	02.19	16.1						
	HFET	(GPM)	000.22	001.85	0407.7	03.29		21.56						

EPA NO. 61052

APPENDIX C

EPA NO.: 61053 MAKE/MODEL: CADILLAC/SEVILLE ENG: 350-FI TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	15	30	20	P	25	30	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	600	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	50	120	60	-	160	80	140	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	210	80	-	90	190	100	-
HTS RPM	820	-	650	-	660	-	650	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	67	30.15	56	54	30.25
HTS	80	50	30.30	71	47	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	630	(600)	580
DWELL	N/A		N/A
TIMING	+09	(+10)	+09
MECH ADVANCE	30	(32)	31
TOTAL ADVANCE	57	(59)	58
PROPANE IDLE CK	60		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Spark Plug Firing Volt.
EGR

Spark Plug Firing Volt.
Cyl. Power Dist.
EGR
Air Filters - Condition

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	022.63	211.61	2218.5	32.98	29.02	
	CS (grams)	002.83	006.58	2286.5	22.78	20.05	
DATE: 3-7-79	HT (grams)	002.57	007.95	1961.1	31.32	27.27	
ODOM: 27066	COMP (GPM)	001.87	013.61	0581.1	07.31	06.41	14.6
	HFET (GPM)	000.23	000.11	0448.8	10.31		19.72
RETEST	FTP CT (grams)	010.87	157.28	2103.5	30.74	26.09	
	CS (grams)	002.16	000.27	2382.1	27.62	23.82	
DATE: 5-10-79	HT (grams)	002.92	002.94	1937.7	31.85	27.03	
ODOM: 28122	COMP (GPM)	001.13	009.28	0585.5	07.87	06.73	14.7
	HFET (GPM)	000.19	000.04	0435.7	09.67		20.32

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0251.7	00.0	2397.4	0020	00.0
LOW	0227.2	00.0	1752.8	0020	00.0
IDLE	0569.8	00.0	0129.4	0030	00.0
HI	0225.8	00.0	2436.8	0050	00.0
LOW	0207.4	00.0	1859.3	0050	00.0
IDLE	0378.8	00.0	0160.7	0070	00.0

EPA NO. 61053

APPENDIX C

EPA NO.: 61054 MAKE/MODEL: CHEV/MALIBU ENG: 305-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	195	155	200	P	245	100	250	F
DEQ CO (%)	0.7	1.4	0.5	P	2.0	0.1	1.7	F
DEQ RPM	900	-	900	P	850	-	850	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	330	120	310	-	260	100	240	-
HTS CO (%)	0.9	0.8	0.8	-	0.1	0.4	0.5	-
HTS NOX (ppm)	100	240	100	-	70	230	100	-
HTS RPM	730	-	800	-	740	-	800	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	67	30.15	58	42	30.25
HTS	78	53	30.29	75	30	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	500	(600)	540
DWELL	N/A		N/A
TIMING	+06	(+08)	+04
MECH ADVANCE	18	(22)	18
TOTAL ADVANCE	37	(40)	42
PROPANE IDLE CK	40		50

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	014.98	197.33	1887.3	14.37	12.31		HI	2074.0	00.9	1446.7	0140	01.0
DATE: 3-07-79	CS (grams)	011.26	132.59	2032.0	07.89	06.71		LOW	0443.0	00.0	1060.9	0040	00.0
ODOM: 38564	HT (grams)	007.07	077.25	1754.8	11.91	10.20		IDLE	3526.9	01.1	0085.5	0230	01.1
	COMP (GPM)	002.90	034.86	0512.5	02.78	02.38	15.4						
	HFET (GPM)	000.62	008.09	0396.8	03.25		21.55						
RETEST	FTP CT (grams)	016.63	206.96	1869.5	12.68	10.87		HI	2046.5	00.6	1434.6	0120	00.8
DATE: 5-10-79	CS (grams)	013.07	147.83	2041.8	07.29	06.21		LOW	0779.6	00.1	0854.7	0080	00.2
ODOM: 40735	HT (grams)	008.66	078.11	1724.7	09.71	08.32		IDLE	3867.0	01.7	0131.6	0300	01.7
	COMP (GPM)	003.35	037.51	0510.5	02.44	02.08	15.3						
	HFET (GPM)	000.68	008.19	0401.6	02.90		21.29						

APPENDIX C

EPA NO.: 61055 MAKE/MODEL: CHEV/MONTE CARLO ENG: 305-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	80	40	P	25	120	30	P
DEQ CO (%)	0.0	1.6	0.0	P	0.0	0.6	0.0	P
DEQ RPM	800	-	800	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	190	40	90	-	80	20	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	230	90	-	70	210	80	-
HTS RPM	700	-	780	-	740	-	760	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	62	30	29.90		64	53	30.10	
HTS	77	29	29.84		80	44	30.07	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	520	(600)	500
DWELL	N/A		N/A
TIMING	+08	(+08)	+07
MECH ADVANCE	21	(22)	20
TOTAL ADVANCE	50	(40)	39
PROPANE IDLE CK	170		180

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Total Adv. @ 2500

Idle Speed
Spark Plug Firing Volt.

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	032.54	403.29	2005.6	15.29	12.90	
DATE: 3-21-79	CS (grams)	001.79	015.06	2315.2	10.20	08.52	
ODOM: 26024	HT (grams)	004.98	035.65	1905.3	14.75	12.36	
	COMP (GPM)	002.48	027.84	0568.5	03.36	02.82	14.3
	HFET (GPM)	000.41	005.89	0443.2	04.26		19.55
RETEST	FTP CT (grams)	025.43	352.60	2039.8	15.41	14.67	
DATE: 5-22-79	CS (grams)	001.36	008.00	2293.9	09.57	09.11	
ODOM: 26940	HT (grams)	002.41	021.65	1923.8	16.07	15.30	
	COMP (GPM)	001.82	022.93	0569.0	03.38	03.22	14.5
	HFET (GPM)	000.19	001.99	0422.1	04.37		20.82

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1247.8	00.6	1405.5	0120	00.6
LOW	0216.6	00.0	0709.1	0030	00.0
IDLE	0109.5	00.0	0308.7	0020	00.0
HI	1132.7	00.5	1203.7	0070	00.6
LOW	0211.9	00.0	0611.6	0020	00.0
IDLE	0095.7	00.0	0301.3	0010	00.0

APPENDIX C

EPA NO.: 61056 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	65	25	70	P	45	25	55	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	140	50	160	-	90	20	60	-
HTS CO (%)	0.5	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	30	200	60	-	50	180	60	-
HTS RPM	850	-	890	-	950	-	970	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	38	30.40	78	23	30.10
HTS	76	31	30.26	84	40	30.04

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(855)	800
DWELL	N/A		N/A
TIMING	+06	(+06)	+05
MECH ADVANCE	19	(20)	17
TOTAL ADVANCE	45	(44)	44
PROPANE IDLE CK	100		140

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR - Func. Check EGR - Func. Check

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.54	031.55	1384.8	14.57	13.00	
DATE:3-26-79	CS (grams)	003.32	005.92	1564.2	10.43	09.27	
ODOM:35249	HT (grams)	003.53	009.07	1226.5	13.84	12.21	
	COMP (GPM)	001.09	003.29	0381.2	03.28	02.91	22.8
	HFET (GPM)	000.31	000.43	0272.9	05.04		32.30
RETEST	FTP CT (grams)	004.80	018.41	1240.3	12.41	11.77	
DATE:6-01-79	CS (grams)	005.54	002.85	1427.1	08.40	08.14	
ODOM:35666	HT (grams)	003.70	006.05	1179.9	12.02	11.75	
	COMP (GPM)	001.30	001.89	0351.1	02.74	02.65	24.8
	HFET (GPM)	000.33	000.28	0253.5	04.11		34.78

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0641.9	00.0	1910.2	0060	00.0
LOW	0485.9	00.0	1194.4	0050	00.0
IDLE	0446.1	00.0	0078.2	0040	00.0
HI	0436.9	00.0	1323.0	0040	00.0
LOW	0375.7	00.0	0828.0	0040	00.0
IDLE	1015.3	00.0	0056.4	0140	00.0

APPENDIX C

EPA NO.: 61057 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	235	130	220	P	25	25	30	P
DEQ CO (%)	0.7	0.6	0.5	P	0.0	0.0	0.0	P
DEQ RPM	900	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	50	80	110	-	90	50	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	100	60	-	50	100	60	-
HTS RPM	920	-	940	-	990	-	1000	-

	°F	RH	BARO	°F	RH	BARO
DEQ	50	80	29.50	66	55	30.15
HTS	75	42	29.43	77	48	30.09

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	590
DWELL	N/A		N/A
TIMING	+11	(+12)	+13
MECH ADVANCE	21	(21)	20
TOTAL ADVANCE	37	(41)	40
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: EGR

Air Filters - Condition
EGR
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.05	085.06	2207.6	07.60	06.54	
DATE: 3-28-79	CS (grams)	001.92	000.31	2317.9	05.94	05.03	
ODOM: 20278	HT (grams)	003.46	007.62	1993.3	07.00	06.00	
	COMP (GPM)	000.92	005.50	0587.1	01.76	01.50	14.8
	HFET (GPM)	000.38	000.17	0433.0	01.96		20.41
RETEST	FTP CT (grams)	009.16	101.93	2230.5	08.97	08.43	
DATE: 5-24-79	CS (grams)	001.86	000.59	2364.1	05.15	04.91	
ODOM: 21404	HT (grams)	003.41	003.98	2023.3	07.77	07.48	
	COMP (GPM)	001.03	006.22	0596.9	01.79	01.71	14.5
	HFET (GPM)	000.33	000.15	0426.7	02.05		20.72

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0378.8	00.0	0333.0	0020	00.0
LOW	0308.4	00.0	0136.4	0020	00.0
IDLE	0326.8	00.0	0061.2	0020	00.0
HI	0315.9	00.0	0332.3	0020	00.0
LOW	0288.4	00.0	0158.0	0030	00.0
IDLE	0325.1	00.0	0053.0	0020	00.0

APPENDIX C

EPA NO.: 61058 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	125	65	135	P	90	70	145	P
DEQ CO (%)	0.5	0.1	0.1	P	1.0	0.1	0.9	P
DEQ RPM	975	-	975	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				0 Minutes			
HTS HC (ppm)	170	120	90	-	120	70	90	-
HTS CO (%)	0.7	0.0	0.1	-	0.7	0.0	0.4	-
HTS NOX (ppm)	140	200	100	-	140	180	120	-
HTS RPM	900	-	870	-	860	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	53	30.10	69	47	30.10
HTS	65	44	30.04	87	40	29.97

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	710	(755)	820
DWELL	N/A		N/A
TIMING	+06	(+02)	+01
MECH ADVANCE	21	(19)	20
TOTAL ADVANCE	40	(36)	38
PROPANE IDLE CK	80		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500

Air Filter (Condition)

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Auto Dealer
COST: $11.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.98	079.48	1859.6	16.82	14.40	
DATE: 3-30-79	CS (grams)	005.22	033.79	1849.5	12.88	11.03	
ODOM: 29320	HT (grams)	004.90	020.43	1640.1	13.31	11.47	
	COMP (GPM)	001.47	010.61	0477.9	03.69	03.17	17.8
	HFET (GPM)	000.23	000.40	0369.5	03.51		23.91
RETEST	FTP CT (grams)	007.07	081.26	1834.1	15.20	13.10	
DATE: 5-29-79	CS (grams)	004.86	033.07	1793.9	12.25	10.55	
ODOM: 31025	HT (grams)	003.90	016.10	1454.8	11.58	09.98	
	COMP (GPM)	001.35	010.29	0454.9	03.38	02.92	18.7
	HFET (GPM)	000.25	000.76	0381.6	03.62		23.12

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0384.9	00.0	1354.5	0020	00.0
LOW	0403.3	00.0	1036.7	0020	00.0
IDLE	1238.6	00.1	0104.9	0080	00.0
HI	0260.8	00.0	1222.8	0020	00.0
LOW	0371.0	00.0	0898.1	0030	00.0
IDLE	2289.0	00.6	0475.5	0160	00.7

EPA NO. 61058

APPENDIX C

EPA NO.: 61059 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	35	25	45	P	30	25	40	P
DEQ CO (%)	0.7	0.1	0.6	P	0.8	0.5	0.6	P
DEQ RPM	800	-	800	P	850	-	900	P
DEQ QUEUE TIME	10 Minutes				30 Minutes			
HTS HC (ppm)	50	20	50	-	80	50	40	-
HTS CO (%)	0.4	0.3	0.7	-	0.6	0.3	0.8	-
HTS NOX (ppm)	40	120	40	-	50	110	65	-
HTS RPM	750	-	830	-	740	-	790	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	57	30.40	69	40	30.20
HTS	68	42	30.30	82	43	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	770	(755)	780
DWELL	N/A		N/A
TIMING	+02	(+02)	+03
MECH ADVANCE	18	(19)	19
TOTAL ADVANCE	43	(40)	41
PROPANE IDLE CK	10		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Spark Plug Firing Volt. Spark Plug Firing Volt.

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.95	294.09	2671.7	04.19	03.85	
DATE: 4-04-79	CS (grams)	002.58	158.47	3089.3	02.74	02.49	
ODOM: 18823	HT (grams)	003.88	176.32	2459.9	04.46	04.04	
	COMP (GPM)	001.09	051.39	0752.0	00.94	00.86	10.6
	HFET (GPM)	000.29	024.92	0600.0	01.31		13.85
RETEST	FTP CT (grams)	010.09	291.18	2394.2	03.21	03.26	
DATE: 6-01-79	CS (grams)	002.49	160.45	2957.9	02.52	02.56	
ODOM: 19751	HT (grams)	003.77	173.70	2371.1	04.00	04.13	
	COMP (GPM)	001.20	051.29	0711.9	00.82	00.84	11.1
	HFET (GPM)	000.24	022.08	0549.6	01.56		15.16

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0227.2	00.9	0248.7	0020	01.0
LOW	0450.5	01.0	181.9	0030	01.0
IDLE	0355.7	00.4	0062.5	0030	00.6
HI	0248.6	00.9	0275.0	0020	00.8
LOW	0508.6	00.8	0153.2	0040	00.7
IDLE	1680.2	01.3	0076.8	0200	01.2

APPENDIX C

EPA NO.: 61060 MAKE/MODEL: FORD/TORINO WGN ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	30	70	P	50	30	60	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	750	P	750	-	750	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	60	20	70	-	120	30	100	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	90	60	-	40	100	50	-
HTS RPM	710	-	750	-	670	-	680	-

	^{o}F	RH	BARO	^{o}F	RH	BARO
DEQ	55	69	30.03	65	63	30.15
HTS	72	49	29.93	73	57	30.08

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(655)	500
DWELL	N/A		N/A
TIMING	+05	(+04)	+05
MECH ADVANCE	13	(18)	16
TOTAL ADVANCE	32	(46)	31
PROPANE IDLE CK	120		160

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.

Idle Speed
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.32	069.24	2915.2	05.57	04.87	
DATE:4-06-79	CS (grams)	001.81	001.51	2977.5	05.85	05.11	
ODOM:37140	HT (grams)	005.18	022.29	2473.3	06.76	05.81	
	COMP (GPM)	000.88	005.86	0752.1	01.61	01.40	11.6
	HFET (GPM)	000.13	000.55	0565.2	01.16		15.66
RETEST	FTP CT (grams)	008.22	053.77	2813.3	05.36	04.67	
DATE:6-06-79	CS (grams)	001.57	001.16	2860.3	05.64	04.89	
ODOM:38554	HT (grams)	002.38	017.06	2394.8	06.92	06.00	
	COMP (GPM)	000.86	004.53	0724.7	01.59	01.38	12.1
	HFET (GPM)	000.14	000.50	0519.2	01.26		17.04

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0118.7	00.0	0218.9	0010	00.0
LOW	0182.9	00.0	0189.8	0020	00.0
IDLE	0283.9	00.0	0073.3	0030	00.0
HI	0251.7	00.0	0215.3	0020	00.0
LOW	0273.1	00.0	0184.3	0030	00.0
IDLE	0236.4	00.0	0098.3	0020	00.0

EPA NO. 61060

APPENDIX C

EPA NO.: 61061 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	35	25	45	P	15	10	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	850	-	900	P	600	-	625	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	80	30	70	-	90	30	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	280	50	-	60	520	60	-
HTS RPM	840	-	840	-	810	-	830	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	50	29.95	75	37	30.15
HTS	78	36	29.88	88	37	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(600)	540
DWELL	N/A		N/A
TIMING	+05	(+12)	+12
MECH ADVANCE	18	(21)	19
TOTAL ADVANCE	37	(41)	38
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
EGR - Plugged
Deposits on Spark Plugs

EGR - Plugged

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.54	018.84	2251.1	40.28	35.08	
DATE:4-06-79	CS (grams)	001.90	000.29	2112.9	23.44	20.62	
ODOM:18587	HT (grams)	002.62	002.30	1944.2	35.71	30.90	
	COMP (GPM)	000.66	001.29	0558.5	08.15	07.11	15.8
	HFET (GPM)	000.18	000.10	0466.0	10.38		19.00
RETEST	FTP CT (grams)	005.31	027.43	2162.7	38.38	39.79	
DATE:6-02-79	CS (grams)	002.13	000.29	2102.7	20.37	21.11	
ODOM:19436	HT (grams)	003.50	002.86	2097.4	37.10	38.15	
	COMP (GPM)	000.85	001.83	0563.8	07.74	08.00	15.6
	HFET (GPM)	000.17	000.08	0440.9	10.74		20.08

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0193.5	00.0	2397.4	0100	00.0
LOW	0248.6	00.0	1607.2	0120	00.0
IDLE	0441.3	00.0	0100.7	0120	00.0
HI	0159.9	00.0	2397.4	0020	00.0
LOW	0251.7	00.0	1389.9	0030	00.0
IDLE	0478.0	00.0	0112.7	0030	00.0

APPENDIX C

EPA NO.: 61062 MAKE/MODEL: FORD/ELITE ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	60	40	95	P	60	60	130	P
DEQ CO (%)	0.2	0.0	0.0	P	0.0	0.0	0.1	P
DEQ RPM	450	-	500	P	800	-	750	P
DEQ QUEUE TIME	25 Minutes				15 Minutes			
HTS HC (ppm)	410	100	140	-	170	90	160	-
HTS CO (%)	0.2	0.1	0.1	-	0.1	0.1	0.1	-
HTS NOX (ppm)	80	180	70	-	70	200	70	-
HTS RPM	590	-	700	-	660	-	730	-

	°F	RH	BARO	°F	RH	BARO
DEQ	49	70	30.00	66	47	30.30
HTS	78	33	29.92	77	39	30.24

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	530	(655)	520
DWELL	N/A		N/A
TIMING	+09	(+12)	+09
MECH ADVANCE	21	(25)	21
TOTAL ADVANCE	48	(49)	49
PROPANE IDLE CK	80		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Ign. Timing @ Idle

Idle Speed
Ign. Timing @ Idle

MAINTENANCE MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Auto Dealer
COST: $15.00

OWNER'S DRIVEABILITY EVAL: Poor Acceleration
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.49	034.02	2430.0	20.36	17.79	
	CS (grams)	005.51	029.20	2497.7	16.47	14.40	
DATE: 4-12-79	HT (grams)	005.88	019.10	2108.2	20.90	18.27	
ODOM: 66873	COMP (GPM)	001.61	007.30	0632.6	04.95	04.33	13.7
	HFET (GPM)	001.00	002.08	0475.5	05.84		18.40
RETEST	FTP CT (grams)	007.77	040.40	2295.9	17.49	16.09	
	CS (grams)	004.98	025.15	2469.6	15.13	13.92	
DATE: 6-09-79	HT (grams)	005.75	016.75	2057.7	20.01	18.41	
ODOM: 69523	COMP (GPM)	001.55	006.94	0617.3	04.54	04.18	14.0
	HFET (GPM)	000.91	001.82	0441.3	04.65		19.84

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0845.1	00.1	1557.1	0100	00.1
LOW	0799.2	00.1	0902.9	0100	00.1
IDLE	0787.0	00.2	0127.0	0100	00.3
HI	0695.2	00.0	1256.2	0020	00.0
LOW	0738.0	00.0	0647.4	0050	00.0
IDLE	0707.5	00.2	0148.5	0070	00.2

EPA NO. 61062

APPENDIX C

EPA NO.: 71051 MAKE/MODEL: HONDA/CVCC ENG: 91-3V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	165	55	260	P	50	25	170	P
DEQ CO (%)	0.2	0.1	0.2	P	0.1	0.1	0.1	P
DEQ RPM	900	-	900	P	550	-	550	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	330	90	300	-	180	60	220	-
HTS CO (%)	0.3	0.3	0.3	-	0.2	0.3	0.3	-
HTS NOX (ppm)	80	160	80	-	70	170	70	-
HTS RPM	820	-	850	-	800	-	850	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	47	79	29.85		52	50	30.30	
HTS	61	68	29.80		74	26	29.98	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	780	(800)	770
DWELL	50	(52)	52
TIMING	+05	(+06)	+06
MECH ADVANCE	23	(22)	22
TOTAL ADVANCE	39	(37)	22
PROPANE IDLE CK	120		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	GRABS
BRAKES	OK	OK
OVERALL PERF	STUMBLES	OK
IDLE LIMITER CAPS:	OK	MISSING
PROBLEM AREAS:	None	Total Adv. @2500

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	010.85	028.55	1039.0	06.88	06.26		HI	0247.2	00.2	2043.7	0045	00.2
DATE: 2-13-79	CS	(grams)	004.64	018.18	1177.3	04.99	04.49		LOW	0473.6	00.2	0757.6	0060	00.2
	HT	(grams)	004.60	012.95	0919.9	08.50	07.51		IDLE	1498.7	00.2	0107.3	0100	00.2
ODOM: 36172	COMP	(GPM)	001.59	005.05	0286.5	01.71	01.53	29.6						
	HFET	(GPM)	000.17	002.23	0221.5	03.20		39.32						
RETEST	FTP CT	(grams)	007.46	041.62	1111.8	08.65	07.37		HI	0299.2	00.1	1638.4	0040	00.1
DATE: 4-19-79	CS	(grams)	002.21	015.33	1107.6	05.02	04.27		LOW	0235.0	00.2	0641.1	0030	00.1
	HT	(grams)	002.46	015.71	0933.9	08.72	07.43		IDLE	1272.3	00.2	0097.6	0120	00.1
ODOM: 38738	COMP	(GPM)	000.91	005.62	0282.4	01.83	01.56	30.2						
	HFET	(GPM)	000.07	002.04	0213.3	03.53		40.93						

APPENDIX C

EPA NO.: 71052 MAKE/MODEL: FORD/MUSTANG ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	10	20	P	60	20	30	P
DEQ CO (%)	0.9	0.1	0.0	P	1.4	0.1	0.7	P
DEQ RPM	800	-	800	P	950	-	950	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	50	30	50	-	140	30	50	-
HTS CO (%)	0.0	0.0	0.0	-	0.4	0.0	0.0	-
HTS NOX (ppm)	40	90	40	-	90	140	80	-
HTS RPM	790	-	860	-	820	-	940	-

	°F	RH	BARO	°F	RH	BARO
DEQ	46	59	29.92	64	44	30.35
HTS	62	41	29.87	82	41	30.28

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	800	(855)	760
DWELL	N/A		N/A
TIMING	-02	(+06)	+02
MECH ADVANCE	12	(20)	9
TOTAL ADVANCE	35	(44)	32
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	HARD	GOOD
TRANSMISSION	OK	OK
CLUTCH	SLIPS	SLIPS
BRAKES	OK	OK
OVERALL PERF	STUMBLE, BACKFIRE	STUMBLE, BACKFIRE, STRETCHY ENGINE MISSES
IDLE LIMITER CAPS:	MISSING	MISSING

PROBLEM AREAS:	
	Ign. Timing @ Idle
	Mech. Adv. @ 2500
	Total Adv. @ 2500
	Air Filters
	Idle Speed
	Ign. Timing @ Idle
	Mech. Adv. @ 2500
	Total Adv. @ 2500
	Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	008.64	122.46	1572.1	05.71	04.79		HI	0305.3	00.0	0762.5	0040	00.0
DATE: 3-02-79	CS (grams)	001.95	034.25	1742.3	02.98	02.48		LOW	0213.5	00.0	0243.2	0040	00.0
ODOM: 20883	HT (grams)	002.49	025.88	1349.8	04.95	04.12		IDLE	0476.7	00.7	0024.8	0040	00.7
	COMP (GPM)	000.94	013.56	0425.0	01.10	00.92	19.7						
	HFET (GPM)	000.12	000.67	0293.0	01.64		30.12						
RETEST	FTP CT (grams)	006.52	102.31	1508.3	04.94	04.66		HI	0163.0	00.0	0611.6	0000	00.0
DATE: 5-22-79	CS (grams)	001.51	013.89	1703.0	03.19	03.01		LOW	0163.0	00.0	0258.3	0000	00.0
ODOM: 22259	HT (grams)	002.53	027.68	1367.8	04.71	04.42		IDLE	0328.1	00.0	0062.5	0020	00.0
	COMP (GPM)	000.77	009.82	0417.5	01.07	01.00	20.4						
	HFET (GPM)	000.08	000.61	0286.1	01.45		30.86						

APPENDIX C

EPA NO.: 71053 MAKE/MODEL: HONDA/CVCC ENG: 91-3V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	80	50	125	P	115	40	125	P
DEQ CO (%)	0.1	0.2	0.1	P	0.1	0.1	0.1	P
DEQ RPM	900	-	900	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	200	50	180	-	160	30	160	-
HTS CO (%)	0.2	0.2	0.2	-	0.2	0.2	0.2	-
HTS NOX (ppm)	90	170	90	-	70	160	80	-
HTS RPM	900	-	900	-	900	-	880	-

	°F	RH	BARO	°F	RH	BARO
DEQ	61	67	30.15	59	70	29.90
HTS	73	63	30.27	72	49	29.63

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	800	(800)	850
DWELL	54	(52)	53
TIMING	+06	(+06)	+07
MECH ADVANCE	28	(22)	23
TOTAL ADVANCE	22	(37)	25
PROPANE IDLE CK	170		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500

Fast Idle Speed
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.51	043.03	1084.6	08.70	07.40	
	CS (grams)	003.21	017.57	1220.7	05.73	04.83	
DATE: 3-07-79	HT (grams)	004.03	014.77	0967.6	08.69	07.32	
ODOM: 33292	COMP (GPM)	000.99	005.93	0298.5	01.92	01.62	28.5
	HFET (GPM)	000.15	002.06	0222.1	04.69		39.26
RETEST	FTP CT (grams)	003.89	032.02	0910.0	07.04	06.24	
	CS (grams)	002.29	014.08	0986.7	04.03	03.60	
DATE: 5-09-79	HT (grams)	002.75	013.55	0809.3	07.33	06.55	
ODOM: 35924	COMP (GPM)	000.74	004.74	0245.2	01.50	01.34	34.8
	HFET (GPM)	000.11	001.50	0201.4	02.97		43.45

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0446.1	00.2	2189.3	0040	00.1
LOW	0556.3	00.2	0988.1	0040	00.2
IDLE	0840.8	00.2	0163.1	0040	00.2
HI	0098.7	00.1	1363.7	0000	00.1
LOW	0371.0	00.2	0697.6	0010	00.2
IDLE	0511.7	00.2	0088.8	0010	00.2

APPENDIX C

EPA NO.: 71054 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	75	20	85	P	60	40	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1050	-	1050	P	1100	-	1150	F
DEQ QUEUE TIME	25 Minutes				5 Minutes			
HTS HC (ppm)	60	20	40	-	140	50	90	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	130	80	-	80	120	80	-
HTS RPM	1080	-	1040	-	1070	-	1050	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	65	39	30.15		59	70	30.00	
HTS	73	42	30.44		69	59	29.91	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(555)	620
DWELL	N/A		N/A
TIMING	+07	(+08)	+07
MECH ADVANCE	22	(20)	18
TOTAL ADVANCE	41	(44)	41
PROPANE IDLE CK	210		240

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:
- Idle Speed
- Mech. Adv. @ 2500
- Air Filters

Idle Speed
Spark Plug Firing Volt.
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Spark Plugs
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Owner
COST: $12.00

OWNER'S DRIVEABILITY EVAL: Stumbling
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	010.49	177.03	1719.2	08.78	07.26		HI	0095.7	00.0	0492.3	0040	00.0
DATE: 3-09-79	CS (grams)	000.97	001.76	1852.5	05.78	04.81		LOW	0138.5	00.0	0463.6	0050	00.0
	HT (grams)	001.23	005.22	1535.7	07.61	06.34		IDLE	0095.7	00.0	0590.1	0030	00.0
ODOM: 15671	COMP (GPM)	000.82	010.78	0462.3	01.85	01.54	18.4						
	HFET (GPM)	000.10	000.54	0337.0	01.75		26.22						
RETEST	FTP CT (grams)	008.66	205.72	1898.9	08.33	07.26		HI	0094.2	00.0	0456.7	0040	00.0
DATE: 5-08-79	CS (grams)	001.15	006.80	2014.2	06.16	05.40		LOW	0124.8	00.0	0204.4	0040	00.0
	HT (grams)	002.15	008.72	1695.6	07.97	06.99		IDLE	0097.3	00.0	0532.0	0050	00.0
ODOM: 18214	COMP (GPM)	000.81	013.36	0506.3	01.90	01.67	16.7						
	HFET (GPM)	000.07	000.39	0347.3	01.57		25.47						

EPA NO.71054

APPENDIX C

EPA NO.: 71055 MAKE/MODEL: PONTIAC/CATALINA ENG: 301-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	20	25	25	P	30	30	40	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.1	0.0	P
DEQ RPM	800	-	800	P	750	-	750	P
DEQ QUEUE TIME	15 Minutes				20 Minutes			
HTS HC (ppm)	20	10	20	-	40	20	30	-
HTS CO (%)	60	120	80	-	80	120	80	-
HTS NOX (ppm)	710	-	710	-	680	-	720	-
HTS RPM								

	°F	RH	BARO	°F	RH	BARO
DEQ	60	39	30.15	59	58	30.10
HTS	75	75	30.44	73	39	30.05

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(555)	550
DWELL	N/A		N/A
TIMING	+09	(+12)	+08
MECH ADVANCE	21	(27)	21
TOTAL ADVANCE	48	(52)	22
PROPANE IDLE CK	140		140

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Cyl. Power Dist.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.27	086.78	2257.5	07.02	05.94	
	CS (grams)	000.63	009.86	2647.5	03.45	02.92	
DATE:3-08-79	HT (grams)	000.78	009.21	2095.3	06.21	05.29	
ODOM: 9922	COMP (GPM)	000.62	006.99	0641.7	01.33	01.13	13.5
	HFET (GPM)	000.03	000.29	0437.2	01.22		20.26
RETEST	FTP CT (grams)	006.84	063.67	2316.8	06.68	05.77	
	CS (grams)	000.43	004.96	2734.8	03.47	03.02	
DATE:5-02-79	HT (grams)	002.07	009.03	2181.5	06.12	05.32	
ODOM:10834	COMP (GPM)	000.61	005.00	0663.3	01.31	01.14	13.2
	HFET (GPM)	000.03	000.12	0453.4	01.15		19.55

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0112.6	00.0	0318.4	0020	00.0
LOW	0091.1	00.0	0151.0	0020	00.0
IDLE	0082.0	00.0	0189.8	0020	00.0
HI	0088.1	00.0	0303.9	0010	00.0
LOW	0078.9	00.0	0148.6	0010	00.0
IDLE	0066.7	00.0	0185.0	0010	00.0

EPA NO.71055

APPENDIX C

EPA NO.: 71056 MAKE/MODEL: BUICK/CENTURY ENG: 231-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	20	45	P	55	45	65	P
DEQ CO (%)	0.5	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	850	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	60	60	100	-	80	90	70	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	190	80	-	60	140	100	-
HTS RPM	730	-	860	-	800	-	890	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	62	31	30.15		60	49	30.40	
HTS	70	40	30.06		77	39	30.32	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	550
DWELL	N/A		N/A
TIMING	+10	(+12)	+08
MECH ADVANCE	19	(20)	21
TOTAL ADVANCE	27	(28)	43
PROPANE IDLE CK	350		240

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: NONE

Ign. Timing @ Idle
Total Adv. @ 2500
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.52	134.41	1858.6	08.15	07.46	
DATE: 3-14-79	CS (grams)	001.30	028.87	2085.1	04.02	03.68	
ODOM: 19658	HT (grams)	001.64	027.11	1678.0	07.11	06.50	
	COMP (GPM)	000.67	013.62	0512.1	01.54	01.41	16.6
	HFET (GPM)	000.09	001.79	0357.7	02.10		24.58
RETEST	FTP CT (grams)	006.79	150.08	1781.9	07.52	06.92	
DATE: 5-15-79	CS (grams)	000.84	007.13	2067.2	03.69	03.47	
ODOM: 21380	HT (grams)	001.21	010.60	1644.9	06.87	06.64	
	COMP (GPM)	000.59	010.36	0502.8	01.45	01.36	17.0
	HFET (GPM)	000.08	000.69	0338.8	01.75		26.08

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0080.4	00.0	0707.1	0020	00.0
LOW	0107.9	00.0	0186.7	0020	00.0
IDLE	0031.4	00.0	0279.8	0020	00.0
HI	0129.3	00.0	0597.3	0000	00.0
LOW	0132.4	00.0	0184.3	0000	00.0
IDLE	0040.6	00.0	0208.2	0000	00.0

EPA NO.71056

APPENDIX C

EPA NO.: 71057 MAKE/MODEL: CHEV/MONTE CARLO ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	50	40	90	P				
DEQ CO (%)	0.0	0.0	0.0	P				
DEQ RPM	800	-	800	P	No Retest - Vehicle Dropped from Program			
DEQ QUEUE TIME	35 Minutes							
HTS HC (ppm)	60	30	50	-				
HTS CO (%)	0.0	0.0	0.0	-				
HTS NOX (ppm)	100	90	100	-				
HTS RPM	830	-	840	-				

	°F	RH	BARO	°F	RH	BARO
DEQ	64	31	30.10			
HTS	72	31	30.01			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	o20	(500)
DWELL	N/A	
TIMING	+10	(+08)
MECH ADVANCE	23	(23)
TOTAL ADVANCE	51	(41)
PROPANE IDLE CK	140	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: OK

PROBLEM AREAS: Idle Speed
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.91	022.40	2280.8	10.22	09.28	
	CS (grams)	000.61	001.40	2436.7	04.67	04.25	
DATE: 3-14-79	HT (grams)	000.65	002.40	1979.0	06.77	06.27	
ODOM: 22340	COMP (GPM)	000.41	001.65	0606.1	01.72	01.58	14.5
	HFET (GPM)	000.06	000.40	0438.1	01.85		20.20
RETEST	FTP CT (grams)						
	CS (grams)						
DATE:	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0089.5	00.0	0547.2	0020	00.0
LOW	0089.5	00.0	0172.3	0020	00.0
IDLE	0068.1	00.0	0236.8	0000	00.0
HI					
LOW					
IDLE					

EPA NO. 71057

APPENDIX C

EPA NO.: 71058 MAKE/MODEL: CHEV/IMPALA ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	170	60	230	P	65	20	90	P
DEQ CO (%)	1.0	0.1	1.3	P	0.4	0.0	0.6	P
DEQ RPM	700	-	700	P	800	-	800	P
DEQ QUEUE TIME	40 Minutes				10 Minutes			
HTS HC (ppm)	30	20	30	-	40	10	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	210	80	-	90	150	70	-
HTS RPM	600	-	670	-	800	-	810	-

	°F	RH	BARO	°F	RH	BARO
DEQ	64	31	30.10	53	52	30.35
HTS	74	26	30.00	76	58	30.30

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	490	(500)	570
DWELL	N/A		N/A
TIMING	+07	(+08)	+08
MECH ADVANCE	23	(22)	23
TOTAL ADVANCE	30	(32)	40
PROPANE IDLE CK	70		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: None

Idle Speed
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE MAINT PRIOR TO RETEST

Adjusted Idle Speed

PERFORMED BY: Service Station
COST: None

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.53	039.12	2160.0	12.48	11.21	
	CS (grams)	003.45	037.27	2222.5	05.82	05.23	
DATE:3-14-79	HT (grams)	002.40	013.91	1849.3	10.02	08.84	
ODOM:28976	COMP (GPM)	000.96	008.27	0560.7	02.25	02.01	15.4
	HFET (GPM)	000.07	000.16	0433.0	02.35		20.46
RETEST	FTP CT (grams)	006.00	035.57	2165.9	12.26	10.65	
	CS (grams)	001.07	014.44	2349.5	05.92	05.14	
DATE:5-11-79	HT (grams)	001.35	005.48	1888.4	08.82	07.66	
ODOM:30202	COMP (GPM)	000.59	004.38	0581.0	02.16	01.88	15.0
	HFET (GPM)	000.03	000.09	0416.3	02.19		21.29

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0066.7	00.0	0835.3	0020	00.0
LOW	0082.0	00.0	0282.0	0030	00.0
IDLE	1440.6	01.0	0058.8	0080	00.8
HI	0060.5	00.0	0633.9	0010	00.0
LOW	0066.7	00.0	0252.9	0010	00.0
IDLE	0424.7	00.5	0177.7	0060	00.5

EPA NO. 71058

EPA NO.: 71059 MAKE/MODEL: FORD/LTD ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	35	150	45	P	40	75	45	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	825	-	850	P	950	-	950	P
DEQ QUEUE TIME	30 Minutes				20 Minutes			
HTS HC (ppm)	370	140	110	-	80	40	60	-
HTS CO (%)	3.1	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	140	100	-	140	180	150	-
HTS RPM	900	-	1000	-	970	-	1030	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	73	29.95	64	48	30.00
HTS	71	52	29.90	75	58	29.93

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	660	(600)	580	
DWELL	N/A		N/A	
TIMING	000	(+10)	+08	
MECH ADVANCE	10	(25)	23	
TOTAL ADVANCE	32	(53)	48	
PROPANE IDLE CK	40		40	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Ign. Timing @ Idle
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Owner
COST: $7.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.29	020.21	2712.9	08.17	07.26	
	CS (grams)	001.14	002.06	2775.3	06.92	06.19	
DATE 3-16-79	HT (grams)	001.19	003.61	2296.4	08.14	07.29	
ODOM 39556	COMP (GPM)	000.43	001.71	0700.1	02.01	01.80	12.6
	HFET (GPM)	000.12	000.02	0487.7	01.75		18.17
RETEST	FTP CT (grams)	002.93	034.66	2621.9	06.96	06.22	
	CS (grams)	001.09	000.33	2691.4	06.71	06.00	
DATE 5-16-79	HT (grams)	001.22	002.15	2225.8	07.90	07.06	
ODOM 43136	COMP (GPM)	000.41	002.19	0678.3	01.89	01.69	13.0
	HFET (GPM)	000.14	000.01	0464.7	01.54		19.06

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0107.9	00.0	0399.1	0000	00.0
LOW	0120.1	00.0	0286.9	0000	00.0
IDLE	0129.3	00.0	0265.4	0000	00.0
HI	0095.7	00.0	0325.1	0000	00.0
LOW	0156.8	00.0	0222.5	0000	00.0
IDLE	0138.5	00.0	0205.8	0000	00.0

EPA NO.71059

APPENDIX C

EPA NO.: 71060 MAKE/MODEL: PLYMOUTH/ARROW ENG: 121-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	130	150	125	P				
DEQ CO (%)	2.3	5.0	2.5	P				
DEQ RPM	1050	-	1100	P	No Retest - Vehicle Dropped from Program			
DEQ QUEUE TIME	45 Minutes							
HTS HC (ppm)	140	110	110	-				
HTS CO (%)	1.5	2.8	1.4	-				
HTS NOX (ppm)	120	280	120	-				
HTS RPM	970	-	1000	-				

	°F	RH	BARO	°F	RH	BARO
DEQ	50	81	29.50			
HTS	77	42	29.43			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	920	(905)
DWELL	50	(52)
TIMING	+11	(+05)
MECH ADVANCE	17	(15)
TOTAL ADVANCE	38	(35)
PROPANE IDLE CK	40	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	OK
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: MISSING

PROBLEM AREAS: Ign. Timing @ Idle
EGR

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.83	226.23	1415.6	12.38	10.61	
DATE: 3-30-79	CS (grams)	008.12	190.94	1618.4	08.40	07.19	
ODOM: 22705	HT (grams)	006.49	122.08	1316.1	13.01	11.07	
	COMP (GPM)	002.14	047.71	0397.0	02.82	02.41	18.5
	HFET (GPM)	000.99	017.87	0299.2	03.60		26.84
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1811.8	01.0	1831.6	0060	01.0
LOW	2022.8	01.9	0649.8	0090	01.8
IDLE	2117.7	02.8	0088.8	0090	02.6
HI					
LOW					
IDLE					

EPA NO. 71060

APPENDIX C

EPA NO.: 71061 MAKE/MODEL: FORD/LTD ENG: 400-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	60	60	P	140	75	55	P
DEQ CO (%)	0.8	1.1	0.7	P	0.8	0.8	0.3	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	90	20	30	-	20	30	50	-
HTS CO (%)	0.2	0.0	1.1	-	0.2	0.0	0.0	-
HTS NOX (ppm)	70	600	70	-	50	580	70	-
HTS RPM	750	-	750	-	780	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	62	30.05	66	41	30.15
HTS	62	54	29.99	75	37	30.22

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	570
DWELL	N/A		N/A
TIMING	+10	(+10)	+11
MECH ADVANCE	21	(25)	24
TOTAL ADVANCE	48	(53)	50
PROPANE IDLE CK	80		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Mech. Adv. @ 2500
EGR

EGR

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	014.19	307.60	2226.4	23.86	19.80	
	CS (grams)	007.82	182.73	2688.5	12.87	10.75	
DATE:3-23-79	HT (grams)	003.30	060.60	2242.4	26.11	21.95	
ODOM:18612	COMP (GPM)	002.11	046.61	0656.5	05.07	04.24	12.0
	HFET (GPM)	000.29	002.34	0478.9	08.53		18.34
RETEST	FTP CT (grams)	012.30	314.78	2251.6	25.37	22.67	
	CS (grams)	009.35	195.95	2708.4	14.23	12.57	
DATE:5-18-79	HT (grams)	003.17	041.20	2240.3	27.52	24.32	
ODOM:19008	COMP (GPM)	002.19	047.30	0660.5	05.44	04.82	12.0
	HFET (GPM)	000.32	001.97	0463.6	08.23		18.96

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0213.5	00.0	1980.6	0020	00.0
LOW	0158.5	00.1	0318.4	0020	00.1
IDLE	0415.5	00.5	0027.2	0030	00.1
HI	0366.5	00.0	2436.8	0040	00.0
LOW	0378.8	00.1	0803.7	0040	00.1
IDLE	1189.7	00.6	0080.6	0080	00.7

EPA NO.71061

APPENDIX C

EPA NO.: 71062 MAKE/MODEL: VOLVO/244 DL ENG: 130-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	90	45	95	P	110	115	125	P
DEQ CO (%)	0.2	0.0	0.2	P	1.0	0.3	1.1	P
DEQ RPM	950	-	950	P	900	-	900	P
DEQ QUEUE TIME	35 Minutes				5 Minutes			
HTS HC (ppm)	200	50	200	-	170	50	150	-
HTS CO (%)	0.6	0.2	0.5	-	0.7	0.3	0.7	-
HTS NOX (ppm)	70	170	70	-	60	180	70	-
HTS RPM	890	-	860	-	840	-	850	-

	°F	RH	BARO	°F	RH	BARO
DEQ	64	46	30.10	65	45	30.35
HTS	77	31	29.91	81	35	30.29

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	900	(900)	850
DWELL	N/A		N/A
TIMING	+12	(+12)	+12
MECH ADVANCE	27	(29)	27
TOTAL ADVANCE	27	(37)	26
PROPANE IDLE CK	300		270

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Spark Plug Firing Volt.
Cyl. Power Dist.
Total Adv. @ 2500

Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Spark Plugs
Replaced Engine Oil
Replaced Fuel Filter
Replaced Oil Filter
Adjusted Idle Speed
Adjusted Timing

PERFORMED BY: Auto Dealer
COST: $64.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	006.16	097.19	1731.6	10.61	09.01		HI	0452.2	00.1	1502.6	0040	00.0
	CS	(grams)	001.18	019.43	2112.2	05.58	04.69		LOW	0238.0	00.0	0757.6	0030	00.0
DATE: 3-22-79	HT	(grams)	002.18	024.06	1568.7	09.51	08.05		IDLE	0231.9	00.0	0083.0	0030	00.0
ODOM: 20007	COMP	(GPM)	000.68	009.99	0500.1	02.08	01.75	17.1						
	HFET	(GPM)	000.15	000.63	0323.0	02.97		27.33						
RETEST	FTP CT	(grams)	006.69	080.65	1631.4	11.10	10.27		HI	1053.1	00.3	1156.0	0060	00.4
	CS	(grams)	001.66	024.99	2068.3	05.58	05.23		LOW	0358.7	00.1	0279.8	0040	00.1
DATE: 5-19-79	HT	(grams)	003.11	027.83	1528.5	09.60	09.06		IDLE	0542.3	00.3	0041.0	0050	00.2
ODOM: 21264	COMP	(GPM)	000.84	010.07	0485.5	02.11	01.97	17.6						
	HFET	(GPM)	000.24	001.30	0313.1	02.97		28.07						

EPA NO. 71062

APPENDIX C

EPA NO.: 71063 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	85	55	P	30	30	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	80	20	60	-	120	20	100	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	180	100	-	60	160	70	-
HTS RPM	720	-	740	-	720	-	740	-

	°F	RH	BARO	°F	RH	BARO
DEQ	50	82	29.50	65	57	30.15
HTS	75	75	29.42	75	47	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(500)	540
DWELL	N/A		N/A
TIMING	+15	(+20)	+18
MECH ADVANCE	25	(29)	28
TOTAL ADVANCE	47	(53)	50
PROPANE IDLE CK	120		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.

PCV Valve - Line Off

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.87	085.12	2053.4	07.97	06.79	
DATE: 3-28-79	CS (grams)	006.77	050.58	2170.8	06.00	05.12	
ODOM: 28554	HT (grams)	003.30	020.11	1835.5	07.51	06.36	
	COMP (GPM)	001.72	013.15	0546.7	01.83	01.56	15.5
	HFET (GPM)	000.15	000.57	0376.8	01.74		23.45
RETEST	FTP CT (grams)	009.71	079.17	2008.2	06.52	05.81	
DATE: 6-06-79	CS (grams)	001.81	007.52	2138.2	06.22	05.54	
ODOM: 31193	HT (grams)	001.34	006.33	1809.6	06.51	05.91	
	COMP (GPM)	000.90	006.02	0537.8	01.70	01.52	16.1
	HFET (GPM)	000.07	000.21	0365.8	01.56		24.21

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0182.9	00.0	0701.8	0010	00.0
LOW	0164.6	00.0	0607.2	0010	00.0
IDLE	0244.1	00.0	0063.6	0020	00.0
HI	0218.0	00.0	0587.8	0020	00.0
LOW	0144.6	00.0	0473.2	0020	00.0
IDLE	0123.2	00.0	0239.2	0020	00.0

EPA NO. 71063

APPENDIX C

EPA NO.: 71064 MAKE/MODEL: PLYMOUTH/VOLARE WGN ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	20	20	20	P	95	35	35	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	625	P	600	-	600	P
DEQ QUEUE TIME	20 Minutes				20 Minutes			
HTS HC (ppm)	30	20	30	-	90	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	310	80	-	60	240	80	-
HTS RPM	610	-	640	-	540	-	600	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	70	29.75	64	53	30.12
HTS	68	50	29.68	74	50	30.07

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(700)	590
DWELL	N/A		N/A
TIMING	+02	(+08)	+01
MECH ADVANCE	11	(18)	11
TOTAL ADVANCE	34	(40)	33
PROPANE IDLE CK	100		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: DAMAGED DAMAGED

PROBLEM AREAS:		
	Idle Speed	Fast Idle Speed
	Ign. Timing @ Idle	Ign. Timing @ Idle
	Mech. Adv. @ 2500	Mech. Adv. @ 2500
	Total Adv. @ 2500	Total Adv. @ 2500
	EGR	EGR

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Air Filter
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $9.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	008.24	151.41	2176.4	15.55	13.43		HI	0095.7	00.0	2130.0	0020	00.0
DATE: 3-29-79	CS (grams)	000.63	003.37	2615.2	07.62	06.54		LOW	0132.4	00.0	1139.3	0020	00.0
ODOM: 16747	HT (grams)	000.77	003.78	2070.6	16.12	13.92		IDLE	0095.7	00.0	0110.3	0020	00.0
	COMP (GPM)	000.62	009.42	0630.8	03.13	02.70	13.7						
	HFET (GPM)	000.07	000.11	0452.9	05.26		19.56						
RETEST	FTP CT (grams)	009.55	174.20	2073.1	15.59	14.33		HI	0138.5	00.0	1910.4	0000	00.0
DATE: 3-23-79	CS (grams)	000.50	000.66	2598.2	08.54	07.85		LOW	0095.7	00.0	0898.1	0000	00.0
ODOM: 17787	HT (grams)	000.95	008.55	2102.9	18.44	16.83		IDLE	0065.1	00.0	0124.6	0000	00.0
	COMP (GPM)	000.69	010.73	0625.1	03.43	03.15	13.8						
	HFET (GPM)	000.08	000.10	0451.1	05.76		19.64						

EPA NO. 71064

APPENDIX C

EPA NO.: 71065 MAKE/MODEL: OLDS/88 ENG: 403-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	25	65	125	P	160	75	225	F
DEQ CO (%)	0.0	0.1	0.3	P	1.7	0.0	1.6	F
DEQ RPM	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	40 Minutes				10 Minutes			
HTS HC (ppm)	350	120	240	-	80	70	80	-
HTS CO (%)	0.4	0.2	0.5	-	0.2	0.0	0.1	-
HTS NOX (ppm)	90	190	100	-	80	210	80	-
HTS RPM	650	-	680	-	650	-	660	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	63	29.75	64	53	30.13
HTS	63	63	29.70	76	50	30.07

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	600	(555)	520
DWELL	N/A		N/A
TIMING	+16	(+20)	+18
MECH ADVANCE	23	(27)	19
TOTAL ADVANCE	50	(51)	43
PROPANE IDLE CK	50		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500

Mech. Adv. @ 2500
Total Adv. @ 2500
EGR

MAINTENANCE MAINT PRIOR TO RETEST
Replaced Engine Oil

PERFORMED BY: Auto Dealer
COST: $4.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	010.12	092.60	2218.4	12.68	10.88		HI	0233.3	00.0	1007.9	0040	00.0
DATE: 3-29-79	CS	(grams)	004.58	043.63	2363.3	08.94	07.67		LOW	0233.3	00.0	0797.9	0040	00.0
ODOM: 29649	HT	(grams)	003.91	031.94	1979.8	11.41	09.86		IDLE	0649.3	00.2	0093.6	0080	00.3
	COMP	(GPM)	001.49	013.55	0592.8	02.79	02.40	14.3						
	HFET	(GPM)	000.18	000.52	0449.5	03.18		19.67						
RETEST	FTP CT	(grams)	008.85	081.60	2070.2	10.06	09.37		HI	0550.1	00.0	0888.6	0050	00.1
DATE: 5-24-79	CS	(grams)	004.75	041.14	2342.6	07.95	07.55		LOW	0329.8	00.0	0852.3	0040	00.0
ODOM: 32021	HT	(grams)	004.15	031.50	1924.3	10.00	09.50		IDLE	1930.2	00.7	0119.4	0170	00.8
	COMP	(GPM)	001.46	012.56	0577.3	02.40	02.27	14.7						
	HFET	(GPM)	000.24	000.63	0422.6	02.60		20.9						

EPA NO.71065

APPENDIX C

EPA NO.: 71066 MAKE/MODEL: CADILLAC/SEVILLE ENG: 350-FI TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	195	300	195	P	50	35	65	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	875	-	875	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	190	140	160	-	60	50	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	160	80	-	80	140	85	-
HTS RPM	830	-	810	-	800	-	810	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	51	52	30.35		63	47	30.35	
HTS	67	41	30.27		83	30	30.29	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(655)	610
DWELL	N/A		N/A
TIMING	+09	(+10)	+08
MECH ADVANCE	27	(27)	28
TOTAL ADVANCE	59	(51)	51
PROPANE IDLE CK	240		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Total Adv. @ 2500
Cyl. Power Dist.

Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.21	116.99	2237.9	20.45	17.29	
	CS (grams)	001.39	001.10	2315.6	16.26	13.84	
DATE:4-03-79	HT (grams)	001.94	002.37	1907.6	21.88	18.50	
ODOM:26417	COMP (GPM)	000.86	007.03	0582.0	05.00	04.24	14.9
	HFET (GPM)	000.13	000.02	0420.6	05.83		21.06
RETEST	FTP CT (grams)	006.95	122.54	2236.2	19.31	17.71	
	CS (grams)	001.18	001.08	2275.6	13.50	12.63	
DATE:6-08-79	HT (grams)	002.62	004.03	1845.3	17.25	15.71	
ODOM:29026	COMP (GPM)	000.75	007.48	0571.9	04.22	03.89	15.1
	HFET (GPM)	000.15	000.04	0364.1	03.34		24.32

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0121.7	00.0	1580.2	0030	00.0
LOW	0115.6	00.0	1255.1	0030	00.0
IDLE	0121.7	00.0	0216.5	0020	00.0
HI	0120.1	00.0	1163.1	0040	00.0
LOW	0095.7	00.0	0938.7	0040	00.0
IDLE	0104.8	00.0	0186.7	0040	00.0

EPA NO. 71066

APPENDIX C

EPA NO.: 71067 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	110	65	230	P	80	40	85	P
DEQ CO (%)	0.0	0.0	0.1	P	0.3	0.1	0.3	P
DEQ RPM	800	-	800	P	1050	-	1050	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	240	120	180	-	10	40	100	-
HTS CO (%)	0.1	0.0	0.1	-	0.2	0.2	0.3	-
HTS NOX (ppm)	50	210	60	-	45	65	55	-
HTS RPM	620	-	660	-	810	-	860	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	53	30.50	77	38	30.05
HTS	68	42	30.74	89	32	30.00

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	610	(700)	730
DWELL	41	(52)	49
TIMING	+07	(+10)	+06
MECH ADVANCE	22	(21)	17
TOTAL ADVANCE	36	(51)	45
PROPANE IDLE CK	60		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed
Ign. Timing @ Idle
Total Adv. @ 2500
Spark Plug Firing Volt.
Dwell

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Spark Plug Firing Volt.
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST
Adjusted Idle Speed

PERFORMED BY: Owner
COST: None

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.81	042.75	1168.9	11.45	09.84		HI	1501.8	00.1	1951.5	0100	00.2
DATE:4-03-79	CS (grams)	003.46	016.15	1307.7	05.39	04.58		LOW	1100.9	00.1	0915.3	0090	00.1
	HT (grams)	003.89	017.80	1030.6	10.37	08.91		IDLE	1364.1	00.1	0068.5	0100	00.1
ODOM:19038	COMP (GPM)	001.03	005.96	0319.7	02.16	01.85	26.7						
	HFET (GPM)	000.82	001.98	0218.6	04.19		39.54						
RETEST	FTP CT (grams)	004.41	051.11	1184.7	09.02	07.74		HI	1486.5	00.2	1623.9	0100	00.1
DATE:6-06-79	CS (grams)	002.82	020.97	1388.7	04.15	03.53		LOW	0837.8	00.1	0303.9	0070	00.1
	HT (grams)	003.54	023.17	1058.5	08.36	07.24		IDLE	6948.6	00.2	0087.9	0080	00.0
ODOM:20746	COMP (GPM)	000.90	007.49	0333.5	01.71	01.46	25.5						
	HFET (GPM)	000.78	002.68	0224.6	03.60		38.34						

EPA NO.71067

APPENDIX C

EPA NO.: 71068 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	70	45	75	P	55	30	45	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	1050	-	1050	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	130	60	90	-	40	20	50	-
HTS CO (%)	2.2	0.2	0.2	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	120	70	-	60	220	80	-
HTS RPM	980	-	1070	-	1080	-	1120	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	52	30.50	62	37	30.40
HTS	65	52	30.42	73	35	30.32

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(855)	850
DWELL	N/A		N/A
TIMING	+02	(+06)	+05
MECH ADVANCE	21	(20)	18
TOTAL ADVANCE	50	(45)	45
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Ign. Timing @ Idle
Total Adv. @ 2500
EGR

EGR

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.08	071.78	1547.0	08.43	07.30	
DATE:4-03-79	CS (grams)	002.74	006.56	1681.9	05.44	04.71	
ODOM:18538	HT (grams)	002.92	012.39	1313.6	07.85	06.79	
	COMP (GPM)	000.99	005.93	0412.8	01.81	01.56	20.9
	HFET (GPM)	000.18	000.13	0267.6	03.60		33.04
RETEST	FTP CT (grams)	009.37	114.44	1334.2	08.09	07.22	
DATE:5-30-79	CS (grams)	002.17	004.32	1623.8	04.00	03.51	
ODOM:20233	HT (grams)	002.94	015.05	1273.1	08.37	07.47	
	COMP (GPM)	001.05	008.28	0389.8	01.63	01.45	21.8
	HFET (GPM)	000.17	000.31	0252.4	04.22		35.00

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0270.0	00.0	1327.9	0030	00.0
LOW	0248.6	00.0	0470.8	0040	00.0
IDLE	0955.2	00.0	0048.2	0060	00.0
HI	0187.4	00.0	1564.2	0020	00.0
LOW	0236.4	00.0	0509.0	0020	00.0
IDLE	1044.0	00.0	0053.0	0050	00.0

EPA NO. 71068

APPENDIX C

EPA NO.: 71069 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	30	85	P	155	60	175	F
DEQ CO (%)	1.7	0.1	1.6	P	2.7	0.2	2.9	F
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	270	120	230	-	170	80	210	-
HTS CO (%)	2.9	0.4	2.6	-	2.4	0.9	2.6	-
HTS NOX (ppm)	60	340	70	-	80	260	100	-
HTS RPM	840	-	890	-	810	-	900	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	51	64	30.50	73	24	30.20
HTS	58	72	30.38	80	41	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	750	(700)	740
DWELL	N/A		N/A
TIMING	+07	(+10)	+09
MECH ADVANCE	15	(21)	17
TOTAL ADVANCE	41	(51)	47
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spark Plug Firing Volt.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.30	065.40	1025.9	10.10	08.74		HI	0939.9	00.1	1681.2	0080	00.1
DATE: 4-03-79	CS (grams)	003.73	047.12	1170.1	04.44	03.84		LOW	1802.6	01.9	0771.6	0140	02.4
	HT (grams)	004.94	046.92	0905.0	06.90	05.97		IDLE	0419.9	00.0	0064.9	0030	00.0
ODOM: 28662	COMP (GPM)	001.18	013.60	0283.6	01.70	01.47	28.7						
	HFET (GPM)	000.34	001.98	0207.6	02.69		41.86						
RETEST	FTP CT (grams)	004.74	056.60	0976.1	08.97	08.70		HI	1085.6	00.1	1563.2	0110	00.1
DATE: 5-31-79	CS (grams)	002.88	013.68	1109.1	05.46	05.30		LOW	0920.4	00.1	1536.5	0100	00.2
	HT (grams)	002.93	015.20	0929.0	07.35	07.29		IDLE	0473.6	00.0	0337.8	0050	00.0
ODOM: 30952	COMP (GPM)	000.88	006.22	0274.5	01.80	01.76	30.9						
	HFET (GPM)	000.32	000.67	0192.6	02.36		45.55						

EPA NO. 71069

APPENDIX C

EPA NO.: 71070 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	105	40	195	P	100	50	115	P
DEQ CO (%)	1.7	0.2	2.0	P	2.0	0.3	1.9	P
DEQ RPM	1000	-	1000	P	950	-	950	P
DEQ QUEUE TIME	0 Minutes				15 Minutes			
HTS HC (ppm)	130	80	130	-	100	40	120	-
HTS CO (%)	1.5	0.3	1.6	-	1.2	0.2	1.5	-
HTS NOX (ppm)	100	180	100	-	110	200	120	-
HTS RPM	790	-	810	-	860	-	850	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	53	30.03	66	56	30.10
HTS	75	40	29.94	67	66	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	870	(925)	850
DWELL	48	(47)	48
TIMING	-01	(-02)	-02
MECH ADVANCE	22	(24)	21
TOTAL ADVANCE	30	(30)	30
PROPANE IDLE CK	110		160

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS:

None

Dist. Point Volt. Drop
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.31	034.33	1156.3	09.40	08.08	
	CS (grams)	004.81	019.66	1320.4	04.58	03.94	
DATE: 4-07-79	HT (grams)	004.22	017.89	1019.8	10.39	09.03	
ODOM: 25736	COMP (GPM)	001.32	005.95	0319.8	01.94	01.67	26.6
	HFET (GPM)	000.90	003.74	0228.4	03.46		37.40
RETEST	FTP CT (grams)	006.60	035.97	1098.3	13.38	11.59	
	CS (grams)	005.96	026.20	1335.1	06.78	05.88	
DATE: 6-06-79	HT (grams)	005.70	025.49	1039.2	14.40	12.26	
ODOM: 27217	COMP (GPM)	001.61	007.49	0320.0	02.77	02.38	26.3
	HFET (GPM)	001.31	004.08	0229.8	04.94		36.89

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1762.8	00.2	1939.1	0100	00.3
LOW	1842.4	00.1	0614.0	0110	00.2
IDLE	1456.9	00.8	0088.8	0080	01.0
HI	2808.4	00.3	2436.8	0140	00.3
LOW	2435.1	00.1	0927.5	0140	00.1
IDLE	1645.6	00.8	0119.4	0080	00.8

EPA NO.71070

APPENDIX C

EPA NO.: 71071 MAKE/MODEL: TOYOTA/CORONA ENG: 134-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	55	10	P	40	15	70	P
DEQ CO (%)	1.0	0.5	1.0	P	0.3	0.2	0.3	P
DEQ RPM	800	-	800	P	900	-	950	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	120	30	90	-	130	30	140	-
HTS CO (%)	1.7	0.3	0.8	-	0.3	0.5	0.3	-
HTS NOX (ppm)	60	80	40	-	40	90	50	-
HTS RPM	680	-	740	-	780	-	820	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	67	30.03	79	35	30.05
HTS	70	51	29.95	75	47	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	630	(855)	720
DWELL	49	(52)	50
TIMING	+09	(+08)	+08
MECH ADVANCE	20	(23)	22
TOTAL ADVANCE	48	(42)	47
PROPANE IDLE CK	0		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dwell

- Dist. Point Volt. Drop
- Spark Plug Firing Volt.
- Idle Speed

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Spark Plugs
- Adjusted Carburetor
- Adjusted Idle Speed
- Adjusted Timing

PERFORMED BY: Independent Repair Garage
COST: $52.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	003.74	082.54	1555.7	10.49	09.13		HI	199.7	00.4	0886.2	0080	00.4
DATE:4-6-79	CS (grams)	001.46	042.79	1885.8	04.82	04.19		LOW	0080.4	00.3	0229.6	0080	00.4
	HT (grams)	001.42	034.64	1414.4	09.00	07.78		IDLE	0560.6	00.6	0062.5	0120	00.7
ODOM:18867	COMP (GPM)	000.52	013.07	0448.1	01.93	01.67	18.9						
	HFET (GPM)	000.07	005.41	0296.9	02.26		29.01						
RETEST	FTP CT (grams)	003.86	082.65	1380.8	07.39	06.98		HI	0342.1	00.4	0845.0	0030	00.4
DATE:6-05-79	CS (grams)	001.71	039.34	1831.8	03.69	03.49		LOW	0216.6	00.5	0354.8	0020	00.5
	HT (grams)	001.62	036.17	1375.7	06.81	06.48		IDLE	1052.0	00.3	0068.5	0080	00.3
ODOM:20120	COMP (GPM)	000.57	012.73	0428.0	01.43	01.36	19.7						
	HFET (GPM)	000.11	006.12	0266.9	02.06		32.04						

EPA NO.71071

APPENDIX C

EPA NO.: 71072 MAKE/MODEL: CHEV/MALIBU ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	20	60	P	40	30	35	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.5	0.0	P
DEQ RPM	750	-	750	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				0 Minutes			
HTS HC (ppm)	100	20	90	-	140	20	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	110	50	-	60	120	60	-
HTS RPM	800	-	720	-	750	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	56	30.00	78	35	30.05
HTS	72	45	29.92	89	32	30.00

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(500)	530
DWELL	N/A		N/A
TIMING	+18	(+08)	+17
MECH ADVANCE	30	(22)	30
TOTAL ADVANCE	30	(37)	30
PROPANE IDLE CK	360		200

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.34	085.49	2260.1	06.53	05.54	
DATE: 4-07-79	CS (grams)	000.66	006.49	2417.0	03.43	02.91	
ODOM: 17688	HT (grams)	003.58	024.73	1992.0	04.12	03.47	
	COMP (GPM)	000.78	007.65	0603.2	01.14	00.97	14.4
	HFET (GPM)	000.09	003.74	0428.0	00.91		20.43
RETEST	FTP CT (grams)	004.78	055.44	2225.6	06.97	06.77	
DATE: 6-05-79	CS (grams)	000.65	002.39	2397.9	03.85	03.74	
ODOM: 19111	HT (grams)	001.78	019.14	1962.7	05.15	04.97	
	COMP (GPM)	000.50	004.95	0596.5	01.30	01.26	14.6
	HFET (GPM)	000.06	002.20	0424.9	01.14		20.69

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0198.2	00.1	0197.1	0020	00.1
LOW	0127.9	00.0	0172.8	0020	00.0
IDLE	0085.0	00.0	0121.9	0020	00.0
HI	0248.6	00.0	0528.1	0010	00.0
LOW	0156.8	00.0	0217.7	0010	00.0
IDLE	0129.3	00.0	0088.8	0000	00.0

EPA NO. 71072

APPENDIX C

EPA NO.: 71073 MAKE/MODEL: TOYOTA/CELICA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	95	50	130	P	15	01	15	P
DEQ CO (%)	0.2	0.1	0.2	P	0.1	0.1	0.1	P
DEQ RPM	900	-	900	P	1050	-	1050	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	240	50	140	-	30	20	50	-
HTS CO (%)	0.2	0.2	0.3	-	0.2	0.3	0.5	-
HTS NOX (ppm)	60	80	60	-	80	80	50	-
HTS RPM	780	-	830	-	1020	-	950	-

	°F	RH	BARO	°F	RH	BARO
DEQ	59	55	30.00	59	51	30.35
HTS	75	44	29.92	70	44	30.30

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	700	(855)	870
DWELL	52	(52)	52
TIMING	-02	(+08)	-03
MECH ADVANCE	14	(23)	03
TOTAL ADVANCE	19	(45)	12
PROPANE IDLE CK	90		50

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	SURGES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500

- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dist. Point Volt. Drop
- Spk Plg Frng Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	002.96	059.32	1576.0	03.49	02.95		HI	0063.6	00.2	0284.4	0000	00.2
DATE:4-07-79	CS (grams)	001.17	025.66	1995.5	02.86	02.43		LOW	0075.8	00.2	0318.4	0000	00.2
ODOM:29862	HT (grams)	001.66	025.17	1425.7	04.00	03.40		IDLE	0152.3	00.4	0039.4	0010	00.3
	COMP (GPM)	000.45	008.74	0464.8	00.88	00.75	18.5						
	HFET (GPM)	000.03	002.74	0277.4	00.86		31.47						
RETEST	FTP CT (grams)	003.10	053.54	1515.3	03.32	02.98		HI	0100.3	00.2	0320.8	0010	00.2
DATE:6-08-79	CS (grams)	001.29	025.04	2047.2	02.61	02.32		LOW	0085.0	00.2	0160.7	0010	00.2
ODOM:31158	HT (grams)	001.34	025.26	1464.8	03.68	03.28		IDLE	0253.3	00.6	0056.4	0020	00.6
	COMP (GPM)	000.45	008.33	0471.2	00.82	00.73	18.3						
	HFET (GPM)	000.04	002.46	0286.4	00.76		30.54						

EPA NO.71073

APPENDIX C

EPA NO.: 71074 MAKE/MODEL: FORD/MAVERICK ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	80	45	90	P	45	140	65	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	1.7	0.0	P
DEQ RPM	1050	-	1050	P	1000	-	1000	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	110	20	120	-	80	20	100	-
HTS CO (%)	0.0	0.2	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	210	610	220	-	100	420	140	-
HTS RPM	1050	-	1080	-	1030	-	1020	-

	°F	RH	BARO	°F	RH	BARO
DEQ	59	52	30.00	82	20	30.05
HTS	65	52	29.96	90	36	30.04

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(600)	620
DWELL	N/A		N/A
TIMING	+05	(+08)	+04
MECH ADVANCE	14	(16)	16
TOTAL ADVANCE	31	(28)	36
PROPANE IDLE CK	220		160

DRIVEABILITY		
ENG STARTING	HARD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Spark Plug Firing Volt.

Ign. Timing @ Idle
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.13	027.56	2021.7	10.46	09.07	
	CS (grams)	001.30	000.75	1992.9	11.15	09.62	
DATE:4-07-79	HT (grams)	002.35	012.78	1767.4	07.85	06.71	
ODOM:20744	COMP (GPM)	000.70	002.65	0516.0	02.68	02.31	17.0
	HFET (GPM)	000.14	000.13	0385.8	01.57		22.95
RETEST	FTP CT (grams)	006.82	059.09	1859.3	08.22	07.98	
	CS (grams)	001.49	011.90	1937.8	10.83	10.67	
DATE:6-02-79	HT (grams)	001.72	016.44	1729.9	06.64	06.49	
ODOM:21658	COMP (GPM)	000.72	006.22	0496.4	02.42	02.37	17.4
	HFET (GPM)	000.17	001.20	0382.3	01.30		23.05

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0244.1	00.0	0405.8	0010	00.0
LOW	0182.9	00.0	1284.2	0000	00.0
IDLE	0222.7	00.0	0845.0	0020	00.0
HI	0254.7	00.0	0372.9	0020	00.0
LOW	0187.4	00.0	2397.4	0020	00.0
IDLE	0190.5	00.0	0637.9	0020	00.0

EPA NO. 71074

APPENDIX C

EPA NO.: 71075 MAKE/MODEL: VOLVO/244DL ENG: 130-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	80	35	85	P	130	80	125	P
DEQ CO (%)	0.9	0.1	0.9	P	1.5	1.0	1.4	P
DEQ RPM	1100	-	1100	P	925	-	950	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	130	20	120	-	140	50	140	-
HTS CO (%)	1.0	0.5	0.8	-	1.5	0.9	1.3	-
HTS NOX (ppm)	80	200	90	-	100	120	80	-
HTS RPM	920	-	900	-	860	-	890	-

	°F	RH	BARO	°F	RH	BARO
DEQ	57	47	30.25	74	40	30.10
HTS	69	39	30.14	94	37	29.90

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	870	(900)	820
DWELL	N/A		N/A
TIMING	+13	(+12)	+14
MECH ADVANCE	28	(29)	29
TOTAL ADVANCE	26	(37)	36
PROPANE IDLE CK	130		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Total Adv. @ 2500
Spark Plug Firing Volt.

Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.60	104.95	1619.4	22.93	19.90	
	CS (grams)	002.69	053.84	1969.7	05.54	04.77	
DATE:4-10-79	HT (grams)	003.85	052.80	1572.1	10.42	09.04	
ODOM:22576	COMP (GPM)	001.03	017.21	0475.0	02.84	02.46	17.6
	HFET (GPM)	000.52	009.23	0299.1	02.23		28.13
RETEST	FTP CT (grams)	006.00	108.24	1527.3	07.33	07.28	
	CS (grams)	003.81	082.65	1897.2	03.70	03.67	
DATE:6-04-79	HT (grams)	003.51	050.77	1461.4	06.65	06.61	
ODOM:23594	COMP (GPM)	001.12	021.08	0451.6	01.42	01.41	18.2
	HFET (GPM)	000.51	009.69	0282.3	01.46		29.65

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1400.8	00.8	1522.0	0160	00.8
LOW	0274.7	00.1	0163.1	0040	00.2
IDLE	0675.6	00.4	0034.5	0130	00.4
HI	1507.9	00.7	0985.7	0110	00.8
LOW	0384.9	00.2	0141.3	0040	00.2
IDLE	0837.8	00.7	0044.2	0070	00.7

APPENDIX C

EPA NO.: 71076 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	235	185	130	P	55	70	55	P
DEQ CO (%)	0.5	0.5	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	190	60	130	-	140	100	130	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	210	120	-	120	230	130	-
HTS RPM	830	-	850	-	890	-	930	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	48	72	29.68	62	49	30.35
HTS	70	40	29.82	74	39	30.30

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	580	(655)	580	
DWELL	N/A		N/A	
TIMING	+02	(+02)	+02	
MECH ADVANCE	13	(18)	16	
TOTAL ADVANCE	43	(46)	49	
PROPANE IDLE CK	200		200	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:	Idle Speed Mech. Adv. @ 2500 Spk Plg Frng Volt. Cyl. Power Dist. EGR	Idle Speed EGR Valve Not Working Air Filters

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.69	096.16	2106.4	11.95	10.30	
DATE:4-11-79	CS (grams)	002.28	019.77	2137.4	08.75	07.60	
ODOM:21644	HT (grams)	003.73	051.15	1809.6	08.69	07.60	
	COMP (GPM)	001.09	012.04	0543.3	02.51	02.18	15.7
	HFET (GPM)	000.32	004.55	0429.8	01.93		20.25
RETEST	FTP CT (grams)	008.33	099.26	1863.8	10.23	08.98	
DATE:6-08-79	CS (grams)	002.26	026.93	2066.7	08.20	07.20	
ODOM:24100	HT (grams)	003.42	041.74	1718.5	07.39	06.48	
	COMP (GPM)	001.04	012.45	0513.0	02.24	01.97	16.5
	HFET (GPM)	000.20	002.61	0360.3	01.50		24.29

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0884.9	00.4	0587.8	0090	00.6
LOW	0190.5	00.0	0630.7	0030	00.0
IDLE	0364.9	00.0	0148.5	0050	00.0
HI	0507.3	00.2	0362.1	0050	00.2
LOW	0210.5	00.0	0619.3	0020	00.0
IDLE	0176.8	00.0	0490.7	0010	00.0

APPENDIX C

EPA NO.: 72051 MAKE/MODEL: CHEV/CAPRICE ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	320	135	310	F	25	45	35	P	15	15	15	P
DEQ CO (%)	6.9	2.1	6.4	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	900	P	1000	-	1000	P	825	-	850	P
DEQ QUEUE TIME	5 Minutes				35 Minutes				10 Minutes			
HTS HC (ppm)	300	100	310	-	30	20	40	-	40	30	30	-
HTS CO (%)	4.8	0.1	5.7	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	190	110	-	90	160	80	-	120	200	110	-
HTS RPM	900	-	930	-	920	-	950	-	750	-	780	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	47	75	30.05		50	60	30.10		63	44	30.25	
HTS	62	69	29.99		65	48	30.04		70	44	30.18	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(500)	630		530
DWELL	N/A		N/A		N/A
TIMING	+08	(+08)	+07		+09
MECH ADVANCE	21	(22)	21		21
TOTAL ADVANCE	44	(37)	37		37
PROPANE IDLE CK	0		150		160
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLES		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING

PROBLEM AREAS:
- Idle Speed
- Total Adv. @ 2500
- Spk Plg Frng Volt.

Idle Speed
Spk Plg Frng Volt.

None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs	None
	Replaced Air Filter	
	Replaced Fuel Filter	
	Replaced Oil Filter	
	Replaced Engine Oil	
	Replaced PCV Valve	
PERFORMED BY:	Auto Dealer	
COST:	$87.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.87	200.46	2099.0	08.19	07.93	
DATE: 3-05-79	CS (grams)	012.05	295.82	1901.3	03.41	03.33	
	HT (grams)	005.68	131.30	1691.8	06.22	06.02	
ODOM: 23918	COMP (GPM)	002.66	060.91	0502.4	01.40	01.36	14.6
	HFET (GPM)	000.22	004.39	0409.3	01.56		21.27
MAINT RETEST	FTP CT (grams)	008.21	075.14	2049.1	08.44	07.35	
DATE: 4-03-79	CS (grams)	000.79	003.87	2170.0	05.18	04.48	
	HT (grams)	000.89	008.71	1803.7	08.09	07.00	
ODOM: 24444	COMP (GPM)	000.64	005.49	0543.9	01.79	01.55	16.0
	HFET (GPM)	000.06	000.03	0414.8	01.88		21.37
RETEST	FTP CT (grams)	005.61	074.60	2012.0	09.84	09.06	
DATE: 5-22-79	CS (grams)	000.85	002.26	2146.6	06.44	05.93	
	HT (grams)	001.39	013.75	1769.8	08.39	07.73	
ODOM: 25420	COMP (GPM)	000.54	005.62	0536.1	02.06	01.90	16.2
	HFET (GPM)	000.06	000.02	0398.1	01.85		22.26

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0138.5	00.0	0475.5	0030	00.0
LOW	0389.3	00.0	1096.2	0060	00.0
IDLE	4150.4	05.4	0064.9	0300	05.0
HI	0080.4	00.0	0473.2	0020	00.0
LOW	0138.5	00.0	0224.9	0030	00.0
IDLE	0052.8	00.0	0193.8	0020	00.0
HI	0152.3	00.0	0658.1	0010	00.0
LOW	0167.6	00.0	0269.9	0020	00.0
IDLE	0075.8	00.0	0277.2	0010	00.0

EPA NO. 72051

APPENDIX C

EPA NO.: 72052 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-1V TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	160	115	165	P	85	55	110	P	60	65	75	P
DEQ CO (%)	6.4	2.8	6.4	F	1.5	0.3	1.3	P	0.8	0.2	0.9	P
DEQ RPM	1100	-	1100	P	950	-	950	P	1000	-	1000	P
DEQ QUEUE TIME	10 Minutes				15 Minutes				5 Minutes			
HTS HC (ppm)	200	140	200	-	80	30	80	-	40	30	60	-
HTS CO (%)	6.2	2.8	6.3	-	0.8	0.2	1.0	-	0.5	0.2	0.6	-
HTS NOX (ppm)	120	180	120	-	120	220	120	-	100	190	110	-
HTS RPM	1100	-	1090	-	860	-	900	-	980	-	950	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	48	78	30.05		51	76	29.95		60	48	30.40	
HTS	60	63	30.02		69	55	29.86		77	35	30.34	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	1040	(925)	860	890
DWELL	50	(47)	50	49
TIMING	-04	(-03)	-10	-03
MECH ADVANCE	19	(24)	18	17
TOTAL ADVANCE	26	(30)	25	25
PROPANE IDLE CK	0		170	200
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	OK		OK	OK
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Idle Speed Mech. Adv. @2500		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500	Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Muffler
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$12.00	Unknown
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.26	132.39	1145.3	08.43	08.11	
DATE: 3-06-79	CS (grams)	011.25	219.10	1284.0	03.70	03.56	
ODOM: 20648	HT (grams)	009.25	158.05	0965.0	05.96	05.61	
	COMP (GPM)	002.79	048.82	0310.2	01.43	01.37	22.4
	HFET (GPM)	001.61	030.35	0220.3	02.01		32.47
MAINT RETEST	FTP CT (grams)	007.90	063.29	1196.4	08.92	07.93	
DATE: 3-16-79	CS (grams)	008.03	054.37	1400.1	05.02	04.38	
ODOM: 20900	HT (grams)	006.75	036.69	1086.5	08.26	07.27	
	COMP (GPM)	002.04	013.67	0337.8	01.81	01.59	24.2
	HFET (GPM)	001.05	007.42	0239.7	02.91		34.81
RETEST	FTP CT (grams)	007.87	055.18	1125.5	09.00	08.17	
DATE: 5-15-79	CS (grams)	006.83	026.45	1376.0	05.14	04.60	
ODOM: 22507	HT (grams)	005.95	020.37	1030.1	08.42	07.54	
	COMP (GPM)	001.81	008.24	0326.3	01.84	01.65	25.7
	HFET (GPM)	000.88	003.97	0226.6	02.79		37.64

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2692.1	02.1	1636.0	0150	02.1
LOW	3326.8	03.2	0447.0	0200	03.4
IDLE	5377.5	05.3	0058.8	0220	08.2
HI	2018.9	00.5	1204.1	0100	00.6
LOW	2318.8	00.4	0925.0	0140	00.4
IDLE	1927.1	01.2	0112.2	0100	01.2
HI	1728.2	00.3	1854.4	0100	00.4
LOW	2064.8	00.2	0910.5	0140	00.2
IDLE	1700.7	00.7	0160.7	0100	00.8

EPA NO. 72052

APPENDIX C

EPA NO.: 72053 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	465	195	445	F	135	65	100	P	315	125	385	F
DEQ CO (%)	5.6	1.8	4.4	F	0.0	0.0	0.0	P	2.0	0.0	1.5	F
DEQ RPM	1000	-	1025	P	800	-	800	P	775	-	775	P
DEQ QUEUE TIME	40 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	350	50	240	-	120	50	100	-	350	30	460	-
HTS CO (%)	3.0	0.0	2.2	-	0.0	0.0	0.0	-	1.1	0.0	0.9	-
HTS NOX (ppm)	100	160	100	-	60	150	60	-	90	80	80	-
HTS RPM	860	-	880	-	710	-	690	-	800	-	760	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	74	30.15		65	39	30.30		72	37	29.95	
HTS	71	72	30.32		64	51	30.22		82	45	29.90	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	560	(555)	510	510
DWELL	N/A		N/A	N/A
TIMING	+06	(+08)	+08	+06
MECH ADVANCE	17	(20)	20	18
TOTAL ADVANCE	41	(44)	60	41
PROPANE IDLE CK	20		160	40
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		STRETCHY	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Fast Idle Speed Mech. Adv. @ 2500		Fast Idle Speed Total Adv. @ 2500	None

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$20.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle,Poor Accel.	No Major Problems
OWNER SATISFIED WITH VEH:	Most of the Time	Yes

APPENDIX C

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.24	192.55	1719.9	10.28	09.10	
DATE: 3-07-79	CS (grams)	008.23	143.18	1650.7	04.00	03.52	
	HT (grams)	005.20	069.04	1476.4	07.05	06.20	
ODOM: 22634	COMP (GPM)	002.08	035.38	0430.9	01.66	01.46	18.0
	HFET (GPM)	000.27	002.63	0338.0	02.12		25.86
MAINT RETEST	FTP CT (grams)	008.57	162.40	1743.4	08.75	07.85	
DATE: 3-27-79	CS (grams)	001.34	009.36	1849.9	04.90	04.43	
	HT (grams)	002.21	019.08	1584.0	07.25	06.55	
ODOM: 23061	COMP (GPM)	000.84	012.01	0467.0	01.71	01.54	18.2
	HFET (GPM)	000.12	001.09	0344.8	02.03		25.57
RETEST	FTP CT (grams)	006.69	130.51	1677.4	08.84	07.80	
DATE: 5-16-79	CS (grams)	004.68	046.90	1757.7	04.48	03.95	
	HT (grams)	003.82	023.54	1560.1	06.64	05.82	
ODOM: 24430	COMP (GPM)	001.30	015.52	0449.1	01.61	01.42	18.6
	HFET (GPM)	000.13	000.71	0348.0	01.95		25.37

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0169.1	00.0	0807.4	0000	00.0
LOW	0447.4	00.1	0451.7	0050	00.1
IDLE	3770.3	04.4	0064.9	0280	04.2
HI	0137.0	00.0	0769.7	0010	00.0
LOW	0134.0	00.0	1747.6	0010	00.0
IDLE	0075.8	00.0	0252.9	0000	00.0
HI	0152.3	00.0	0709.1	0020	00.0
LOW	0161.5	00.0	2050.9	0030	00.0
IDLE	2655.4	02.5	0092.8	0220	02.6

EPA NO. 72053

APPENDIX C

EPA NO.: 72054 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 225-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	270	530	340	F	15	50	20	P	20	150	65	P
DEQ CO (%)	7.2	5.4	7.2	F	0.0	0.1	0.0	P	0.0	1.4	0.0	P
DEQ RPM	1000	-	1000	P	950	-	950	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				22 Minutes				1 Minutes			
HTS HC (ppm)	330	230	310	-	140	30	120	-	60	40	30	-
HTS CO (%)	5.7	3.2	5.7	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	140	300	130	-	50	900	60	-	65	260	80	-
HTS RPM	970	-	980	-	700	-	780	-	810	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	31	30.15		58	54	30.34		83	32	30.22	
HTS	74	36	30.11		64	56	30.26		93	37	29.90	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	740	(700)	710	580
DWELL	N/A		N/A	N/A
TIMING	+13	(+12)	+17	+16
MECH ADVANCE	20	(19)	19	26
TOTAL ADVANCE	48	(36)	43	42
PROPANE IDLE CK	0		300	250

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Total Adv. @ 2500 Spk Plg Frng Volt. Vacuum Hoses - Routing EGR	Ign. Timing @ Idle Total Adv. @ 2500 EGR Vacuum Hoses	Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Vacuum Hoses EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filters Replaced PCV System Adjusted Carburetor Replaced Fuel Filter & CC Filter	None
PERFORMED BY:	Auto Dealer	
COST:	$77.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.86	237.97	1614.4	31.18	25.86	
DATE: 3-13-79	CS (grams)	014.68	327.10	1596.1	19.43	16.01	
ODOM: 13428	HT (grams)	010.84	165.84	1460.3	11.18	09.27	
	COMP (GPM)	003.46	069.86	0416.4	05.23	04.32	16.5
	HFET (GPM)	000.52	008.45	0348.2	01.94		24.42
MAINT RETEST	FTP CT (grams)	004.68	047.50	1625.0	40.79	35.86	
DATE: 4-05-79	CS (grams)	001.01	011.93	1818.1	31.86	28.00	
ODOM: 13736	HT (grams)	004.03	013.92	1577.4	36.50	32.30	
	COMP (GPM)	000.71	005.37	0455.5	09.36	08.24	19.0
	HFET (GPM)	000.09	000.74	0357.3	02.96		24.72
RETEST	FTP CT (grams)	005.37	128.84	1678.6	36.98	35.92	
DATE: 6-05-79	CS (grams)	000.94	015.73	1766.7	23.74	22.89	
ODOM: 14777	HT (grams)	003.60	016.80	1563.6	39.90	37.67	
	COMP (GPM)	000.71	010.76	0450.6	08.32	07.98	18.9
	HFET (GPM)	000.09	001.31	0348.1	03.05		25.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0908.2	00.2	0997.8	0100	00.2
LOW	1471.2	00.4	2436.8	0140	00.4
IDLE	3216.8	04.5	0121.9	0220	04.6
HI	0458.3	00.0	1109.5	0120	00.7
LOW	0259.4	00.0	2436.8	0040	00.1
IDLE	0186.0	00.0	0439.7	0020	00.0
HI	0120.1	00.0	0981.7	0010	00.0
LOW	0089.5	00.0	2397.4	0010	00.0
IDLE	0062.0	00.0	0353.8	0000	00.0

EPA NO. 72054

APPENDIX C

EPA NO.: 72055 MAKE/MODEL: FORD/T-BIRD ENG: 351-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	570	325	520	F	80	85	130	P	45	35	30	P
DEQ CO (%)	5.1	1.0	3.2	F	0.5	0.2	0.8	P	0.6	0.0	0.0	P
DEQ RPM	1000	-	1000	F	950	-	950	P	950	-	950	P
DEQ QUEUE TIME	49 Minutes				15 Minutes				15 Minutes			
HTS HC (ppm)	740	130	580	-	60	50	60	-	70	20	60	-
HTS CO (%)	2.3	0.0	3.2	-	0.4	0.0	0.6	-	0.0	0.0	0.0	-
HTS NOX (ppm)	130	680	140	-	80	50u	90	-	120	590	130	-
HTS RPM	950	-	970	-	940	-	900	-	800	-	810	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	28	30.02		64	33	30.15		63	52	30.12	
HTS	73	29	30.00		78	27	30.10		73	50	30.17	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	560	(625)	610	580
DWELL	N/A		N/A	N/A
TIMING	+01	(+04)	+03	+04
MECH ADVANCE	14	(15)	16	18
TOTAL ADVANCE	41	(43)	44	38
PROPANE IDLE CK	0		60	250
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Spk Plg Frng. Volt. EGR - Plugged		EGR - Plugged	Fast Idle Speed EGR - Plugged Total Adv. @ 2500 Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$25.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.48	161.29	2104.0	27.22	24.97	
DATE: 3-15-79	CS (grams)	018.76	290.09	2052.5	18.89	17.32	
ODOM: 35152	HT (grams)	009.12	124.57	1826.3	25.28	23.18	
	COMP (GPM)	003.97	057.39	0533.1	06.00	05.50	13.9
	HFET (GPM)	000.36	003.79	0431.1	06.98		20.24
MAINT RETEST	FTP CT (grams)	007.13	079.16	2334.1	28.57	24.09	
DATE: 3-23-79	CS (grams)	004.43	093.50	2605.9	16.44	13.73	
ODOM: 35538	HT (grams)	001.76	022.91	2127.5	27.50	23.12	
	COMP (GPM)	001.13	018.75	0643.0	05.92	04.97	13.1
	HFET (GPM)	000.15	001.57	0445.2	07.98		19.79
RETEST	FTP CT (grams)	004.09	037.15	2812.8	38.35	36.50	
DATE: 5-23-79	CS (grams)	001.62	038.00	2628.4	16.40	15.58	
ODOM: 37900	HT (grams)	001.30	009.99	2097.7	23.44	21.98	
	COMP (GPM)	000.55	007.96	0671.1	06.17	05.84	12.9
	HFET (GPM)	000.10	000.21	0440.0	03.75		20.12

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0309.8	00.0	2397.4	0040	00.0
LOW	0533.1	00.1	1896.1	0060	00.0
IDLE	5470.9	05.2	0129.4	0400	04.8
HI	0120.1	00.0	2397.4	0000	00.0
LOW	0111.0	00.0	1435.3	0000	00.0
IDLE	0245.5	00.2	0088.8	0020	00.3
HI	0155.4	00.0	1376.4	0010	00.0
LOW	0112.6	00.0	0963.9	0010	00.0
IDLE	0118.7	00.1	0097.6	0010	00.0

EPA NO. 72055

APPENDIX C

EPA NO.: 72056 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	490	120	490	F	45	25	106	P	175	45	230	P
DEQ CO (%)	4.6	0.2	4.4	F	0.0	0.0	0.1	P	0.2	0.0	0.4	P
DEQ RPM	800	-	800	P	650	-	700	P	725	-	750	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	700	130	630	-	110	50	80	-	180	30	240	-
HTS CO (%)	3.8	1.1	3.1	-	0.0	0.0	0.0	-	0.0	0.0	0.2	-
HTS NOX (ppm)	100	160	100	-	80	160	80	-	80	170	60	-
HTS RPM	790	-	820	-	670	-	660	-	700	-	700	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	36	29.95		58	50	30.10		70	37	30.20	
HTS	79	33	29.90		70	36	30.04		83	36	30.18	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	530	(500)	490	510
DWELL	N/A		N/A	N/A
TIMING	+19	(+20)	+19	+18
MECH ADVANCE	27	(29)	28	29
TOTAL ADVANCE	52	(53)	52	50
PROPANE IDLE CK	0		110	60

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK
IDLE LIMITER CAPS:	OK	MISSING	MISSING
PROBLEM AREAS:	Spk Plg Frng Volt. Cyl. Power Dist.	Cyl. Power Dist. EGR Air Filters - Cond.	Cyl. Power Dist. EGR Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Engine Oil Replaced Oil Filter Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$38.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	011.47	150.74	1945.1	05.89	04.95		HI	0184.4	00.0	0597.3	0040	00.0
DATE: 3-21-79	CS (grams)	010.94	176.67	1961.9	03.19	02.68		LOW	0337.3	00.0	0423.0	0040	00.0
	HT (grams)	005.52	075.99	1730.2	04.63	03.91		IDLE	4360.5	03.5	0064.9	0320	03.4
ODOM: 20227	COMP (GPM)	002.54	037.97	0504.6	01.12	00.94	15.5						
	HFET (GPM)	000.25	002.08	0396.7	01.42		22.13						
MAINT RETEST	FTP CT (grams)	010.13	101.09	1996.7	05.19	04.69		HI	0169.1	00.0	0494.6	0100	00.0
DATE: 4-24-79	CS (grams)	004.58	033.87	2098.5	03.73	03.38		LOW	0120.1	00.0	0456.4	0090	00.0
	HT (grams)	003.04	029.07	1799.2	04.30	03.89		IDLE	1212.2	01.0	0081.6	0200	01.3
ODOM: 20625	COMP (GPM)	001.42	012.52	0531.0	01.12	01.01	16.0						
	HFET (GPM)	000.12	001.24	0391.3	01.32		22.53						
RETEST	FTP CT (grams)	011.09	102.77	1943.7	04.61	04.32		HI	0193.5	00.0	0509.0	0030	00.0
DATE: 6-09-79	CS (grams)	004.42	037.14	2081.6	03.40	03.17		LOW	0141.5	00.0	0418.2	0050	00.0
	HT (grams)	002.34	029.86	1797.0	04.29	04.02		IDLE	2056.5	01.1	0084.0	0190	01.1
ODOM: 20887	COMP (GPM)	001.40	013.11	0525.5	01.04	00.97	16.1						
	HFET (GPM)	000.11	000.80	0371.6	01.20		23.76						

EPA NO. 72056

APPENDIX C

EPA NO.: 72057 MAKE/MODEL: CHEV/CHEVETTE ENG: 98-1 TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	190	60	170	F	90	35	35	P	35	15	20	P
DEQ CO (%)	2.9	0.0	3.2	F	1.0	0.0	1.0	P	0.5	0.1	0.3	P
DEQ RPM	1150	-	1150	F	900	-	900	P	950	-	950	P
DEQ QUEUE TIME	25 Minutes				5 Minutes				0 Minutes			
HTS HC (ppm)	80	20	30	-	40	50	60	-	30	30	50	-
HTS CO (%)	0.6	0.0	0.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	400	70	-	100	220	100	-	130	290	120	-
HTS RPM	1070	-	1130	-	1120	-	850	-	900	-	890	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	61	37	30.15		50	71	30.50		63	48	30.35	
HTS	77	35	30.10		68	42	30.39		76	41	30.30	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	730		(800)		680				760			
DWELL	N/A				N/A				N/A			
TIMING	+11		(+08)		+09				+08			
MECH ADVANCE	19		(18)		17				17			
TOTAL ADVANCE	51		(48)		49				50			
PROPANE IDLE CK	70				0				50			
DRIVEABILITY												
ENG STARTING	GOOD				GOOD				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	OK				OK				OK			
OVERALL PERF	STRETCHY				OK				OK			
IDLE LIMITER CAPS:	MISSING				MISSING				MISSING			
PROBLEM AREAS:	Fast Idle Speed Ign. Timing @ Idle				Idle Speed Fast Idle				None			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Owner	
COST:	$17.00	
OWNER'S DRIVEABILITY EVAL:	Engine Misfiring,Poor Rough Idle,Acceleration,Stalling	No Major Problems
OWNER SATISFIED WITH VEH:	No	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.68	045.91	1247.0	14.14	12.08	
DATE: 3-23-79	CS (grams)	000.80	012.96	1258.3	10.62	09.16	
	HT (grams)	000.88	007.20	1106.2	12.52	10.55	
ODOM: 17862	COMP (GPM)	000.39	004.91	0323.3	03.18	02.72	26.7
	HFET (GPM)	000.08	000.40	0264.0	04.24		33.48
MAINT RETEST	FTP CT (grams)	003.36	057.86	1232.1	12.68	10.97	
DATE: 4-03-79	CS (grams)	000.84	013.03	1239.6	10.45	08.99	
	HT (grams)	001.93	018.89	1104.6	12.25	10.53	
ODOM: 18090	COMP (GPM)	000.45	006.49	0319.9	03.05	02.63	26.8
	HFET (GPM)	000.08	000.80	0254.7	03.61		34.61
RETEST	FTP CT (grams)	003.62	073.09	1236.1	11.23	09.79	
DATE: 5-19-79	CS (grams)	001.52	032.77	1228.5	09.41	08.20	
	HT (grams)	001.44	018.91	1080.3	10.10	08.96	
ODOM: 19228	COMP (GPM)	000.52	010.00	0316.8	02.67	02.34	26.5
	HFET (GPM)	000.11	001.13	0251.7	03.36		34.93

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0172.1	00.0	2380.7	0050	00.0
LOW	0104.8	00.0	1848.3	0050	00.0
IDLE	1068.4	01.2	0177.1	0120	01.2
HI	0369.6	00.0	2436.8	0040	00.4
LOW	0195.2	00.0	2121.3	0080	00.2
IDLE	1973.0	01.6	0211.7	0150	01.8
HI	0513.4	00.0	1832.6	0040	00.1
LOW	0213.5	00.0	2004.8	0040	00.1
IDLE	1936.3	02.1	0175.3	0150	02.1

EPA NO. 72057

APPENDIX C

EPA NO.: 72058 MAKE/MODEL: PLYMOUTH/ARROW ENG: 121-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	200	165	195	F	100	55	85	P	115	115	115	P
DEQ CO (%)	5.4	6.0	5.4	F	0.7	1.0	0.8	P	1.1	2.0	1.2	P
DEQ RPM	800	-	800	P	1000	-	1200	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				16 Minutes				20 Minutes			
HTS HC (ppm)	250	130	200	-	120	30	80	-	140	70	130	-
HTS CO (%)	5.2	2.1	4.4	-	0.5	0.3	0.6	-	0.6	1.1	0.6	-
HTS NOX (ppm)	130	240	120	-	50	220	60	-	90	360	90	-
HTS RPM	810	-	800	-	750	-	770	-	790	-	790	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	37	30.15		51	58	30.40		64	51	30.15	
HTS	78	30	30.10		70	56	30.31		72	49	30.07	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	680	(955)	670		750
DWELL	50	(52)	50		49
TIMING	+08	(+05)	+09		+09
MECH ADVANCE	14	(15)	14		16
TOTAL ADVANCE	14	(35)	14		14
PROPANE IDLE CK	0		80		70
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK

IDLE LIMITER CAPS: MISSING | MISSING | MISSING

PROBLEM AREAS:
- Initial: Idle Speed; Ign. Timing @ Idle; Total Adv. @ 2500; Dist. Point Volt. Drop; Spk Plg Frng Volt.
- Maint Retest: Idle Speed; Ign. Timing @ Idle; Total Adv. @ 2500; Dist Point Volt Drp; Spk Plg Frng Volt; Air Filters - Cond.
- Retest: Idle Speed; Ign. Timing @ Idle; Total Adv. @ 2500; Air Filters - Cond.; Spk Plg Frng Volt.

MAINTENANCE

MAINT TO PASS DEQ:
Adjusted Carburetor
Adjusted Idle Speed

MAINT PRIOR TO RETEST:
None

PERFORMED BY: Service Station
COST: $7.00

OWNER'S DRIVEABILITY EVAL: No Major Problems | No Major Problems
OWNER SATISFIED WITH VEH: Yes | Yes

APPENDIX C

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.49	133.76	1638.1	08.72	07.86	
DATE: 3-28-79	CS (grams)	004.83	120.12	1809.7	05.36	04.83	
	HT (grams)	003.74	058.17	1486.6	06.63	06.02	
ODOM: 14102	COMP (GPM)	001.36	028.11	0448.2	01.72	01.55	17.9
	HFET (GPM)	000.24	003.42	0345.3	01.48		25.23
MAINT RETEST	FTP CT (grams)	005.45	090.73	1672.8	08.75	07.65	
DATE: 4-04-79	CS (grams)	003.34	061.74	1871.3	05.31	04.59	
	HT (grams)	003.42	038.09	1523.3	07.02	06.08	
ODOM: 14331	COMP (GPM)	001.02	016.33	0461.2	01.74	01.51	18.1
	HFET (GPM)	000.23	002.78	0326.5	01.50		26.74
RETEST	FTP CT (grams)	005.98	074.69	1464.1	07.87	07.53	
DATE: 5-23-79	CS (grams)	003.75	065.33	1854.0	05.33	05.06	
	HT (grams)	003.83	038.50	1457.6	07.03	06.72	
ODOM: 15425	COMP (GPM)	001.13	015.92	0441.9	01.70	01.62	18.8
	HFET (GPM)	000.27	003.08	0316.7	01.47		27.50

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0450.5	00.1	0587.8	0020	00.2
LOW	1129.6	00.6	0544.8	0080	00.7
IDLE	2790.6	04.6	0064.9	0170	04.7
HI	0323.7	00.1	0553.8	0020	00.1
LOW	0657.2	00.4	0573.2	0020	00.2
IDLE	1269.2	00.7	0063.6	0030	00.2
HI	0504.2	00.1	0607.2	0030	00.1
LOW	0785.8	00.3	0240.8	0040	00.3
IDLE	1774.1	01.3	0063.6	0110	01.4

EPA NO. 72058

APPENDIX C

EPA NO.: 72059 MAKE/MODEL: PLYMOUTH/VOLARE WGN ENG: 225-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	250	165	250	F	190	55	70	P	200	130	130	P
DEQ CO (%)	4.5	4.1	2.8	F	0.7	0.0	0.0	P	1.7	3.6	0.0	P
DEQ RPM	800	-	800	P	600	-	600	P	750	-	800	P
DEQ QUEUE TIME	15 Minutes				5 Minutes				25 Minute			
HTS HC (ppm)	150	140	90	-	490	120	120	-	200	140	140	-
HTS CO (%)	0.3	1.7	0.0	-	0.2	0.6	0.0	-	0.0	1.6	0.0	-
HTS NOX (ppm)	70	180	60	-	70	180	70	-	80	190	70	-
HTS RPM	660	-	640	-	600	-	600	-	650	-	650	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	65	27	30.15	52	47	30.40	66	54	30.10
HTS	75	30	30.11	63	46	30.31	82	42	30.06

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	670	(755)	660		780
DWELL	N/A		N/A		N/A
TIMING	+10	(+12)	+10		+10
MECH ADVANCE	18	(19)	18		19
TOTAL ADVANCE	38	(36)	41		37
PROPANE IDLE CK	60		170		180
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		SURGES, STUMBLES		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Idle Speed Air Filters - Cond. Spk Plg Frng Volt. Air Pump		Idle Speed Total Adv. @ 2500 Air Filters - Cond. Air Pump		Spk Plg Frng Volt. Cyl. Power Dist. Air Pump Air Filters Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Engine Oil Replaced Oil Filter
PERFORMED BY:	Independent Repair Garage	Owner
COST:	$40.00	Unknown
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.92	413.33	1727.3	05.18	04.60	
DATE: 3-26-79	CS (grams)	012.26	163.37	1915.7	04.49	03.98	
	HT (grams)	012.68	173.54	1637.9	04.39	03.87	
ODOM: 53120	COMP (GPM)	003.80	058.67	0478.9	01.23	01.09	15.2
	HFET (GPM)	002.16	033.45	0358.3	01.16		21.23
MAINT RETEST	FTP CT (grams)	022.21	390.40	1786.1	05.15	04.63	
DATE: 4-05-79	CS (grams)	010.04	119.51	1998.9	04.96	04.47	
	HT (grams)	009.97	149.78	1753.8	05.27	04.75	
ODOM: 53504	COMP (GPM)	003.37	049.70	0502.2	01.36	01.22	15.0
	HFET (GPM)	001.98	030.46	0379.3	01.32		20.46
RETEST	FTP CT (grams)	018.27	363.82	1632.2	04.72	04.43	
DATE: 5-23-79	CS (grams)	009.46	128.32	1963.1	03.70	03.46	
	HT (grams)	010.10	154.06	1615.1	03.84	03.55	
ODOM: 54524	COMP (GPM)	003.08	049.68	0478.1	01.06	00.99	15.7
	HFET (GPM)	001.84	032.25	0345.7	01.03		22.05

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2389.9	02.2	0205.8	0130	02.2
LOW	2659.1	01.5	1055.7	0180	01.6
IDLE	2591.8	00.7	0086.4	0200	01.0
HI	2298.1	01.6	0265.4	0080	01.9
LOW	2497.0	01.0	1132.1	0130	01.1
IDLE	0579.0	00.0	0050.6	0020	00.0
HI	2447.3	02.4	0209.2	0140	02.4
LOW	2603.4	01.5	1315.7	0180	01.5
IDLE	2086.3	00.0	0066.1	0180	00.1

EPA NO. 72059

APPENDIX C

EPA NO.: 72060 MAKE/MODEL: MERCURY/MONARCH ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	255	155	280	F	120	70	75	P	80	95	105	P
DEQ CO (%)	6.2	0.8	5.8	F	0.0	0.0	0.0	P	0.0	1.6	0.1	P
DEQ RPM	1000	-	850	P	800	-	800	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	300	150	240	-	80	40	70	-	190	60	90	-
HTS CO (%)	6.0	1.8	4.5	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	160	130	-	120	160	110	-	90	140	100	-
HTS RPM	700	-	730	-	690	-	650	-	660	-	650	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	63	31	30.20		55	48	30.30		67	52	30.31	
HTS	75	30	30.13		71	41	30.17		83	32	30.23	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	540	(655)	620	530
DWELL	N/A		N/A	N/A
TIMING	000	(+02)	+01	+02
MECH ADVANCE	07	(10)	11	07
TOTAL ADVANCE	35	(34)	30	40
PROPANE IDLE CK	0		190	200

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING | MISSING | MISSING

PROBLEM AREAS:
- Idle Speed
- Fast Idle Speed
- Spk Plg Frng Volt.
- Air Filters

Fast Idle Speed
Spk Plg Frng Volt.

Spk Plg Frng Volt.
EGR Diaphram Leaks
Idle Speed
Fast Idle Speed
Total Adv. @ 2500

MAINTENANCE

MAINT TO PASS DEQ
- Replaced Air Filter
- Adjusted Carburetor
- Adjusted Idle Speed
- Adjusted Timing
- Adjusted Dwell

MAINT PRIOR TO RETEST
None

PERFORMED BY: Owner
COST: $4.00

OWNER'S DRIVEABILITY EVAL: Rough Idle | No Major Problems
OWNER SATISFIED WITH VEH: Yes | Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.96	299.90	1835.9	04.97	04.36	
DATE: 3-27-79	CS (grams)	018.25	351.43	2031.3	02.21	01.94	
	HT (grams)	015.65	222.04	1709.3	03.26	02.88	
ODOM: 24825	COMP (GPM)	004.65	080.93	0506.0	00.83	00.73	13.7
	HFET (GPM)	001.60	020.15	0406.5	00.95		20.01
MAINT RETEST	FTP CT (grams)	011.71	112.86	2112.3	06.03	05.31	
DATE: 4-10-79	CS (grams)	002.96	038.65	2380.1	01.97	01.73	
	HT (grams)	006.63	086.41	1908.5	02.71	02.38	
ODOM: 25485	COMP (GPM)	001.57	018.19	0583.5	00.81	00.72	14.4
	HFET (GPM)	000.57	010.04	0418.0	00.73		20.36
RETEST	FTP CT (grams)	007.63	121.55	1911.9	04.38	04.08	
DATE: 5-25-79	CS (grams)	002.89	035.43	2357.4	02.13	01.96	
	HT (grams)	006.44	085.57	1832.8	02.17	01.98	
ODOM: 26880	COMP (GPM)	001.31	018.20	0563.2	00.70	00.65	14.9
	HFET (GPM)	000.43	008.94	0415.8	00.69		20.56

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2659.1	01.1	0368.1	0180	01.2
LOW	2542.9	00.9	0134.1	0180	00.9
IDLE	5000.7	05.6	0076.8	0320	05.3
HI	1322.3	00.6	0267.8	0120	00.8
LOW	0309.8	00.0	0119.8	0030	00.0
IDLE	0196.6	00.0	0153.2	0020	00.0
HI	0935.7	00.6	0221.4	0110	00.7
LOW	0250.3	00.0	0136.4	0050	00.0
IDLE	0216.6	00.0	0148.6	0050	00.0

EPA NO. 72060

APPENDIX C

EPA NO.: 72061 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-FI TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	145	80	140	P	130	70	100	P	105	70	115	P
DEQ CO (%)	2.8	1.2	2.7	F	1.3	0.5	1.3	P	1.7	0.5	1.8	P
DEQ RPM	950	-	950	P	900	-	900	P	1050	-	1050	P
DEQ QUEUE TIME	15 Minutes				15 Minutes				0 Minutes			
HTS HC (ppm)	110	50	120	-	120	60	100	-	120	50	130	-
HTS CO (%)	1.7	0.4	2.1	-	0.9	0.3	1.1	-	1.2	0.4	1.5	-
HTS NOX (ppm)	100	160	100	-	90	160	90	-	100	210	110	-
HTS RPM	1000	-	1040	-	950	-	960	-	980	-	980	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	55	46	29.75		58	55	30.25		68	45	30.29	
HTS	65	39	29.70		67	53	30.16		84	32	30.22	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	930	(925)	880	850	
DWELL	43	(47)	43	43	
TIMING	-02	(-03)	-03	-02	
MECH ADVANCE	27	(24)	27	17	
TOTAL ADVANCE	32	(30)	32	20	
PROPANE IDLE CK	100		210	100	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	FI		FI	FI	
PROBLEM AREAS:	Mech. Adv. @ 2500 Spk Plg Frng Volt. Dwell		Mech. Adv. @ 2500 Dwell	Mech. Adv. @ 2500 Total Adv. @ 2500 Dwell	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted FI Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$4.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.34	042.82	1102.5	10.61	09.03	
DATE: 3-30-79	CS (grams)	005.77	042.98	1276.5	05.51	04.72	
ODOM: 24226	HT (grams)	005.31	026.21	0990.3	11.53	09.95	
	COMP (GPM)	001.54	010.18	0308.7	02.22	01.90	26.9
	HFET (GPM)	000.80	003.57	0225.9	04.12		37.89
MAINT RETEST	FTP CT (grams)	007.02	036.21	1107.9	10.69	09.72	
DATE: 4-05-79	CS (grams)	005.60	028.12	1266.9	04.74	04.34	
ODOM: 24439	HT (grams)	004.47	019.19	1003.4	11.07	10.05	
	COMP (GPM)	001.49	007.28	0308.7	02.09	01.90	27.3
	HFET (GPM)	000.90	003.39	0229.4	04.35		37.32
RETEST	FTP CT (grams)	006.87	038.63	0985.1	10.96	10.41	
DATE: 5-25-79	CS (grams)	006.35	035.13	1224.5	05.19	05.03	
ODOM: 25620	HT (grams)	005.17	023.38	0968.5	10.99	11.09	
	COMP (GPM)	001.63	008.68	0293.4	02.16	02.11	28.4
	HFET (GPM)	001.07	004.63	0217.4	04.23		38.88

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1768.9	00.3	2397.4	0040	00.3
LOW	1897.4	00.1	0800.2	0060	00.2
IDLE	1992.2	01.5	0095.9	0060	01.4
HI	2053.4	00.3	2397.4	0100	00.4
LOW	1906.6	00.1	0575.8	0110	00.2
IDLE	1723.1	01.0	0074.5	0090	01.0
HI	2523.8	00.4	2436.8	0150	00.4
LOW	2312.7	00.2	0684.8	0150	00.2
IDLE	1872.1	01.0	0075.8	0120	01.0

EPA NO. 72061

APPENDIX C

EPA NO.: 72062 MAKE/MODEL: BUICK/ELECTRA ENG: 403-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	245	155	325	F	35	40	40	P	40	40	70	P
DEQ CO (%)	2.8	0.1	2.4	F	0.0	0.4	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	800	P	800	-	850	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	280	70	390	-	80	110	60	-	90	100	90	-
HTS CO (%)	2.0	0.0	1.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	160	120	-	90	140	90	-	100	170	110	-
HTS RPM	700	-	800	-	760	-	770	-	830	-	800	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	56	30.10		53	69	30.05		65	50	30.32	
HTS	65	44	30.04		66	57	29.99		78	46	30.26	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	570	(555)	590	650	
DWELL	N/A		N/A	N/A	
TIMING	+17	(+20)	+19	+18	
MECH ADVANCE	25	(27)	27	26	
TOTAL ADVANCE	47	(51)	49	51	
PROPANE IDLE CK	0		140	140	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Ign. Timing @ Idle Cyl. Power Dist.		Spk Plg Frng Volt.	Idle Speed Cyl. Power Dist.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Service Station	
COST:	$8.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.59	131.10	2223.6	11.84	10.05	
DATE: 3-30-79	CS (grams)	008.41	116.12	2434.6	06.54	05.59	
	HT (grams)	006.01	052.36	2007.5	10.94	09.43	
ODOM: 33352	COMP (GPM)	002.24	026.98	0604.7	02.38	02.04	13.6
	HFET (GPM)	000.34	001.41	0429.8	02.67		20.47
MAINT RETEST	FTP CT (grams)	007.70	066.47	2259.0	11.74	10.51	
DATE: 4-06-79	CS (grams)	004.12	030.19	2493.7	06.83	06.12	
	HT (grams)	004.34	016.44	1975.3	10.74	09.45	
ODOM: 33403	COMP (GPM)	001.32	009.09	0612.1	02.40	02.14	14.1
	HFET (GPM)	000.24	000.47	0424.5	02.60		20.82
RETEST	FTP CT (grams)	007.11	055.89	2188.8	10.79	10.11	
DATE: 5-25-79	CS (grams)	003.35	018.28	2541.1	06.19	05.80	
	HT (grams)	003.57	017.15	2014.4	10.61	09.94	
ODOM: 36428	COMP (GPM)	001.13	006.95	0617.4	02.25	02.11	14.0
	HFET (GPM)	000.23	000.46	0408.8	02.41		21.62

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0449.2	00.0	0835.3	0040	00.0
LOW	0372.7	00.0	0464.0	0040	00.0
IDLE	4417.2	03.1	0092.8	0320	03.2
HI	0322.0	00.0	0731.0	0030	00.0
LOW	0263.9	00.0	0446.9	0030	00.0
IDLE	0159.9	00.0	0210.5	0010	00.0
HI	0320.6	00.0	0689.7	0040	00.0
LOW	0311.5	00.0	0364.5	0060	00.0
IDLE	0207.4	00.0	0182.5	0050	00.0

EPA NO. 72062

APPENDIX C

EPA NO.: 72063 MAKE/MODEL: FORD/T-BIRD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	1200	390	1225	F	45	55	50	P	395	170	370	F
DEQ CO (%)	2.0	0.1	1.2	F	0.0	0.0	0.0	P	3.7	0.1	2.5	F
DEQ RPM	1050	-	1050	P	1000	-	1000	P	1100	-	1100	7
DEQ QUEUE TIME	5 Minutes				22 Minutes				5 Minutes			
HTS HC (ppm)	1140	880	1350	-	90	120	40	-	520	190	460	-
HTS CO (%)	6.0	0.1	0.6	-	0.0	0.0	0.0	-	1.3	0.0	2.5	-
HTS NOX (ppm)	100	180	130	-	200	160	220	-	140	210	130	-
HTS RPM	830	-	970	-	970	-	980	-	1050	-	1080	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	51	55	30.50		54	46	30.00		75	38	30.05	
HTS	65	48	30.44		66	40	29.94		80	50	30.03	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	650	(625)	550	580	
DWELL	N/A		N/A	N/A	
TIMING	+06	(+04)	+04	+04	
MECH ADVANCE	22	(15)	14	13	
TOTAL ADVANCE	49	(43)	38	33	
PROPANE IDLE CK	100		110	40	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt.		Idle Speed Spk Plg Frng Volt.	Total Adv. @ 2500 Spk Plg Frng Volt.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced PCV System Replaced Fuel Filter & Em. Filter Adjusted Carburetor Adjusted Idle Speed & Choke Adjusted Timing	None
PERFORMED BY:	Auto Dealer	
COST:	$40.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX C

EPA NO.: 72063 MAKE/MODEL : FORD/T-BIRD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT 1ST	HTS MAINT 2500	HTS MAINT 2ND	HTS MAINT S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	130	40	P	360	190	85	P
DEQ CO (%)	0.0	0.0	0.0	P	0.6	0.0	0.0	P
DEQ RPM	1000	-	1000	P	1050	-	1050	P
DEQ QUEUE TIME	25 Minutes				37 Minutes			
HTS HC (ppm)	60	120	30	-	100	90	50	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	160	170	140	-	180	190	180	-
HTS RPM	930	-	920	-	920	-	970	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	65	42	30.22		73	51	30.10	
HTS	80	41	30.10		78	43	30.03	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(625)	540
DWELL	N/A		N/A
TIMING	+05	(+04)	+04
MECH ADVANCE	14	(15)	13
TOTAL ADVANCE	44	(43)	42
PPOPANE IDLE CK	190		200
DRIVEABILITY			
ENG STARTING	GOOD		GOOD
TRANSMISSION	OK		OK
CLUTCH	N/A		N/A
BRAKES	OK		OK
OVERALL PERF	OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING
PROBLEM AREAS:	None		Idle Speed

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
	Adjusted Idle Speed	
	Replaced Preheat Tube	
PERFORMED BY:	HTS	
COST:	$3.00	
MANHOURS:	1.5 Hours	
OWNER'S DRIVEABILITY EVAL:	N/A	No Major Problems
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX C

TEST		FTP & HFET RESULTS HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.39	134.59	2009.8	13.51	11.81	
DATE: 4-03-79	CS (grams)	013.15	236.79	2072.0	09.00	07.81	
	HT (grams)	007.73	077.02	1806.7	10.86	09.56	
ODOM: 22667	COMP (GPM)	003.05	045.14	0528.8	02.80	02.44	14.6
	HFET (GPM)	000.35	002.55	0392.6	02.28		22.30
MAINT RETEST	FTP CT (grams)	009.93	093.19	2180.3	37.88	32.93	
DATE: 4-18-79	CS (grams)	003.63	038.84	2355.8	31.70	27.56	
	HT (grams)	002.03	010.58	1995.8	36.73	31.42	
ODOM: 22910	COMP (GPM)	001.21	011.33	0590.8	09.19	07.95	14.5
	HFET (GPM)	000.13	000.16	0421.1	09.36		21.03
RETEST	FTP CT (grams)	011.05	165.83	1938.0	08.74	08.20	
DATE: 6-04-79	CS (grams)	013.40	287.25	2126.9	05.87	05.63	
	HT (grams)	008.59	118.99	1822.2	06.36	06.09	
ODOM: 24463	COMP (GPM)	003.07	056.85	0533.2	01.77	01.68	14.0
	HFET (GPM)	000.28	003.05	0379.6	01.36		23.02
HTS MAINT RETEST	FTP CT (grams)	009.95	076.09	2041.2	10.92	09.67	
DATE: 6-07-79	CS (grams)	003.08	038.78	2273.3	09.19	08.14	
	HT (grams)	003.66	017.92	1885.9	09.42	08.35	
ODOM: 25401	COMP (GPM)	001.26	010.90	0563.5	02.57	02.27	15.2
	HFET (GPM)	000.13	000.38	0387.4	01.70		22.83
RETEST	FTP CT (grams)	006.21	081.35	2339.0	10.79	10.22	
DATE: 7-03-79	CS (grams)	001.19	010.04	2444.4	09.29	08.79	
	HT (grams)	003.58	006.77	2047.5	08.99	08.45	
ODOM: 25516	COMP (GPM)	000.79	006.52	0615.6	02.54	02.40	14.1
	HFET (GPM)	000.16	000.19	0420.4	01.67		21.05

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0374.0	00.0	0690.4	0030	00.0
LOW	0407.7	00.0	0879.0	0040	00.0
IDLE	3670.3	04.2	0232.0	0250	03.6
HI	0221.1	00.0	2397.4	0090	00.0
LOW	0129.3	00.0	2397.4	0090	00.0
IDLE	0104.8	00.0	0306.0	0060	00.0
HI	0280.9	00.0	0490.7	0040	00.0
LOW	0244.1	00.0	0515.0	0050	00.0
IDLE	4147.1	05.3	0170.4	0320	05.0
HI	0205.8	00.0	0509.0	0030	00.0
LOW	0144.6	00.0	0466.0	0020	00.0
IDLE	0493.3	00.4	0158.0	0060	00.4
HI	0179.4	00.0	0496.2	0010	00.0
LOW	0121.3	00.0	0403.0	0010	00.0
IDLE	0075.4	00.0	0481.8	0010	00.0

EPA NO. 72063

APPENDIX C

EPA NO.: 72064 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	590	260	695	F	105	60	100	P	185	90	195	P
DEQ CO (%)	9.9	2.9	10.2	F	0.0	0.1	0.0	P	0.0	0.2	0.0	P
DEQ RPM	1050	-	1050	F	1050	-	1100	P	1125	-	1200	F
DEQ QUEUE TIME	10 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	730	210	830	-	250	90	130	-	200	80	190	-
HTS CO (%)	9.6	1.0	9.9	-	0.0	1.2	0.0	-	0.0	1.1	0.0	-
HTS NOX (ppm)	120	650	130	-	140	580	160	-	160	560	160	-
HTS RPM	1120	-	1150	-	1030	-	1070	-	1080	-	1140	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	48	70	30.50	61	67	30.25	66	37	30.20
HTS	68	46	30.39	79	43	30.19	79	31	30.14

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	670	(600)	700		680
DWELL	N/A		N/A		N/A
TIMING	+03	(+06)	+04		+04
MECH ADVANCE	12	(14)	12		11
TOTAL ADVANCE	33	(34)	31		31
PROPANE IDLE CK	0		160		160
DRIVEABILITY					
ENG STARTING	HARD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLES		OK		OK
IDLE LIMITER CAPS:	OK		MISSING		MISSING
PROBLEM AREAS:	Idle Speed Spk Plg Frng Volt. EGR - Plugged		Idle Speed Spk Plg Frng Volt. EGR Plugged		Idle Speed EGR Hose Plugged

MAINTENANCE

MAINT TO PASS DEQ
Adjusted Carburetor
Replaced Air Filter
Adjusted Idle Speed

MAINT PRIOR TO RETEST
None

PERFORMED BY: Service Station
COST: $13.00

OWNER'S DRIVEABILITY EVAL: Dieseling
OWNER SATISFIED WITH VEH: Yes

No Major Problems
Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	021.89	297.90	1682.2	25.70	22.24	
DATE: 4-03-79	CS (grams)	030.06	553.36	1465.8	13.63	11.79	
ODOM: 22161	HT (grams)	016.61	236.92	1476.4	24.54	21.24	
	COMP (GPM)	006.53	108.87	0404.1	05.16	04.46	14.9
	HFET (GPM)	002.08	023.76	0368.3	06.85		21.51
MAINT RETEST	FTP CT (grams)	009.82	138.32	1771.6	27.45	24.30	
DATE: 5-01-79	CS (grams)	009.62	084.85	1853.6	17.91	15.85	
ODOM: 22795	HT (grams)	007.22	061.57	1594.1	25.54	22.61	
	COMP (GPM)	002.39	023.92	0469.9	05.90	05.23	17.2
	HFET (GPM)	001.07	009.83	0370.5	07.21		22.78
RETEST	FTP CT (grams)	009.73	145.72	1771.6	27.70	24.84	
DATE: 6-15-79	CS (grams)	008.85	083.34	1894.8	19.45	17.45	
ODOM: 24364	HT (grams)	006.91	051.96	1612.4	28.48	25.54	
	COMP (GPM)	002.26	023.42	0476.8	06.35	05.69	17.0
	HFET (GPM)	001.17	010.28	0356.8	07.58		23.54

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2359.3	00.8	2397.4	0120	00.8
LOW	4210.5	02.2	1547.5	0280	02.1
IDLE	9992.3	10.2	0062.5	0800	08.8
HI	1460.0	00.4	2397.4	0100	00.4
LOW	1980.0	00.7	1931.9	0160	00.6
IDLE	2163.5	00.7	0540.0	0170	00.6
HI	1342.7	00.1	2436.8	0080	00.1
LOW	2208.7	00.9	2169.8	0150	00.9
IDLE	2040.4	00.3	0629.0	0150	00.3

EPA NO. 72064

APPENDIX C

EPA NO.: 72065 MAKE/MODEL: BUICK/CENTURY ENG: 231-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	410	225	425	F	45	45	45	P	30	50	30	P
DEQ CO (%)	6.8	5.9	6.0	F	0.0	0.6	0.0	P	0.0	1.1	0.0	P
DEQ RPM	1100	-	1100	F	825	-	825	P	750	-	800	P
DEQ QUEUE TIME	5 Minutes				15 Minutes				10 Minutes			
HTS HC (ppm)	430	160	420	-	120	50	80	-	140	40	80	-
HTS CO (%)	4.2	0.9	5.2	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	130	110	-	70	80	70	-	80	130	80	-
HTS RPM	1050	-	1100	-	710	-	710	-	640	-	680	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	57	48	30.25		64	38	30.00		64	47	30.33	
HTS	75	39	30.13		80	29	29.98		81	35	30.25	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	630	(600)	540	480
DWELL	N/A		N/A	N/A
TIMING	+11	(+12)	+13	+10
MECH ADVANCE	21	(23)	20	19
TOTAL ADVANCE	29	(47)	58	40
PROPANE IDLE CK	0		310	350

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK
IDLE LIMITER CAPS:	OK	MISSING	MISSING

PROBLEM AREAS:
- Total Adv. @ 2500
- Air Filters - Cond.

MAINT RETEST:
- Total Adv. @ 2500
- Mech. Adv. @ 2500

RETEST:
- Total Adv. @ 2500
- Mech. Adv. @ 2500
- Idle Speed
- Ign. Timing @ Idle

MAINTENANCE

MAINT TO PASS DEQ:
- Adjusted Carburetor
- Adjusted Idle Speed

MAINT PRIOR TO RETEST:
- None

PERFORMED BY: Service Station
COST: $8.00

OWNER'S DRIVEABILITY EVAL: Stalling
OWNER SATISFIED WITH VEH: Yes

No Major Problems
Yes

APPENDIX C

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	019.63	335.71	1821.2	09.43	08.36	
DATE: 4-10-79	CS (grams)	013.41	322.18	1771.3	02.48	02.20	
ODOM: 10091	HT (grams)	007.16	152.04	1619.7	07.43	06.59	
	COMP (GPM)	003.46	073.76	0463.7	01.44	01.27	15.0
	HFET (GPM)	000.43	010.21	0375.6	02.07		22.56
MAINT RETEST	FTP CT (grams)	008.61	152.50	1867.1	11.26	10.18	
DATE: 4-24-79	CS (grams)	001.27	029.87	1893.6	04.21	03.81	
ODOM: 10300	HT (grams)	001.82	029.24	1643.6	08.91	07.97	
	COMP (GPM)	000.80	014.95	0484.4	01.89	01.70	17.4
	HFET (GPM)	000.10	002.68	0370.1	02.54		23.67
RETEST	FTP CT (grams)	008.39	172.49	1776.1	10.08	09.77	
DATE: 6-08-79	CS (grams)	001.05	028.67	1874.7	04.08	03.95	
ODOM: 10948	HT (grams)	001.97	029.92	1635.4	08.21	08.13	
	COMP (GPM)	000.77	015.99	0476.1	01.75	01.71	17.6
	HFET (GPM)	000.09	003.07	0363.7	02.39		24.04

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0279.2	00.0	0487.5	0000	00.0
LOW	2261.4	01.4	0138.9	0130	01.3
IDLE	5390.8	05.1	0038.6	0300	04.2
HI	0141.5	00.0	0800.2	0090	00.1
LOW	0089.5	00.0	0181.9	0100	00.1
IDLE	0052.8	00.0	0315.6	0080	00.1
HI	0089.5	00.0	0442.1	0020	00.0
LOW	0086.5	00.0	0174.7	0020	00.0
IDLE	0043.7	00.0	0322.7	0020	00.0

EPA NO. 72065

APPENDIX D

TEST RESULTS FOR 1-MONTH RETEST VEHICLES

Legend

Idle Test Results

1st	-	Initial Idle Test	°F	-	Temperature in °F
2500	-	High Idle Test @ 2500 RPM	RH	-	Relative Humidity
2nd	-	Second Idle Test	BARO	-	Barometric Pressure
S	-	Pass/Fail Status	QUEUE TIME	-	Time Waiting in Line Prior to Test

FTP & HFET Results

CT	-	Cold Transient Portion of FTP
CS	-	Cold Stabilized Portion of FTP
HT	-	Hot Transient Portion of FTP
COMP (GPM)	-	Composite results for FTP in grams per mile
NOXC	-	Oxide of Nitrogen Emissions Corrected for Humidity
MPG	-	Miles per gallon calculated by the Carbon Balance Method
ODOM	-	Odometer Reading

FED Three-Mode Test Results

HI	-	52 MPH Test
LOW	-	25 MPH Test
HC-L	-	Total Hydrocarbons in ppm (Using the Laboratory Analyzer)
CO-L	-	Carbon Monoxide in Percent (Using the Laboratory Analyzer)
NOX-L	-	Oxides of Nitrogen in ppm (Using the Laboratory Analyzer)
HC-G	-	Hydrocarbons in ppm Hexane (Using the Garage Analyzer)
CO-G	-	Carbon Monoxide in Percent (Using the Garage Analyzer)

Diagnostic Check

Idle Speed and Propane Idle Check readings are in RPM

Dwell, Timing, Mech. Advance and Total Advance readings are in degrees of crankshaft rotation from Top Dead Center (+ before, - after)

Common Abbreviations

FI	-	Fuel Injection	N/A	-	Not Applicable
PERF	-	Performance	CK	-	Check
ENG	-	Engine	MECH	-	Mechanical

APPENDIX D

EPA NO.: 51101 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	50	15	60	P	50	25	80	P
DEQ CO (%)	0.5	0.1	0.4	P	0.6	0.1	0.4	P
DEQ RPM	1000	-	1000	P	1100	-	1100	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	60	20	50	-	90	20	70	-
HTS CO (%)	0.3	0.1	0.3	-	0.3	0.2	0.2	-
HTS NOX (ppm)	80	110	50	-	40	60	40	-
HTS RPM	880	-	970	-	940	-	960	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	58	41	30.15	-	55	69	30.03	-
HTS	75	40	30.40	-	77	39	29.92	-

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	950	(855)	920
DWELL	62	(57)	62
TIMING	+11	(+12)	+09
MECH ADVANCE	18	(27)	16
TOTAL ADVANCE	18	(41)	18
PROPANE IDLE CK	70		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	STRETCHY	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:	
	Idle Speed
	Fast Idle Speed
	Mech. Adv. @ 2500
	Total Adv. @ 2500
	Dist. Point Volt. Drop
	Spark Plug Firing Volt.
	Dwell
	Vacuum Adv. Line

Ign Timing @ Idle	
Mech. Adv. @ 2500	
Total Adv. @ 2500	
Dist. Point Volt. Drop	
Spark Plug Firing Volt.	
Dwell	
Vacuum Adv. Line	

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	006.04	101.80	1434.4	05.45	04.66		HI	0458.3	00.0	0609.6	0040	00.1
DATE: 3-08-79	CS	(grams)	003.01	027.30	1743.1	04.04	03.40		LOW	0290.0	00.1	0306.3	0040	00.1
ODOM: 33039	HT	(grams)	003.48	037.01	1351.6	05.14	04.35		IDLE	0706.2	00.4	0061.2	0060	00.3
	COMP	(GPM)	001.01	012.29	0417.4	01.24	01.05	20.2						
	HFET	(GPM)	000.14	001.03	0305.1	01.46		28.87						
RETEST	FTP CT	(grams)	004.42	055.57	1492.7	07.15	06.25		HI	0060.5	00.1	0607.2	0000	00.1
DATE: 4-06-79	CS	(grams)	001.90	032.10	1737.9	04.62	04.03		LOW	0134.0	00.2	0274.7	0000	00.2
ODOM: 33544	HT	(grams)	002.48	025.64	1347.5	06.19	05.35		IDLE	0602.2	00.6	0049.1	0030	00.5
	COMP	(GPM)	000.70	009.42	0419.7	01.50	01.30	20.3						
	HFET	(GPM)	000.04	001.52	0286.5	01.42		30.68						

EPA NO. 51101

APPENDIX D

EPA NO.: 51102 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	20	55	45	P	110	90	105	P
DEQ CO (%)	0.1	1.8	0.2	P	1.6	2.1	1.2	P
DEQ RPM	885	-	850	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				15 Minutes			
HTS HC (ppm)	40	50	40	-	100	60	70	-
HTS CO (%)	0.1	0.8	0.1	-	0.2	0.8	0.4	-
HTS NOX (ppm)	90	230	90	-	100	320	110	-
HTS RPM	760	-	770	-	760		710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	25	30.10	49	72	30.00
HTS	74	29	30.10	69	39	29.88

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	580	(855)	620	
DWELL	N/A		N/A	
TIMING	+04	(+06)	+05	
MECH ADVANCE	19	(18)	22	
TOTAL ADVANCE	27	(42)	29	
PROPANE IDLE CK	140		100	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	STUMBLE, BACKFIRE	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- EGR
- Total Adv. @ 2500
- Spark Plug Firing Volt.

Idle Speed
EGR
Total Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Stalling
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	010.55	178.82	1428.2	09.61	08.28		HI	2557.5	00.9	1473.4	0100	01.0
		CS (grams)	009.48	160.10	1650.2	05.37	04.62		LOW	2432.0	01.6	0561.1	0110	01.6
DATE: 3-12-79		HT (grams)	008.33	096.93	1354.3	09.91	08.45		IDLE	2869.6	01.9	0087.9	0110	02.0
ODOM: 74379		COMP (GPM)	002.50	038.97	0404.8	02.02	01.73	18.7						
	HFET	(GPM)	001.38	018.06	0295.3	02.89		27.03						
RETEST	FTP	CT (grams)	012.24	217.84	1434.5	09.46	08.21		HI	2074.0	00.8	1495.3	0080	00.9
		CS (grams)	009.41	159.73	1648.2	05.57	04.87		LOW	2425.9	01.6	0534.4	0110	01.6
DATE: 4-11-79		HT (grams)	010.15	111.17	1340.9	09.59	08.30		IDLE	2425.9	02.0	0073.3	0090	01.9
ODOM: 75257		COMP (GPM)	002.73	042.24	0403.9	02.01	01.75	18.5						
	HFET	(GPM)	001.15	015.36	0296.6	02.89		27.34						

APPENDIX D

EPA NO.: 51103 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	25	40	40	P	125	35	40	P
DEQ CO (%)	0.0	0.2	0.1	P	0.2	0.0	0.0	P
DEQ RPM	800	-	800	P	950	-	950	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	370	50	190	-	300	60	150	-
HTS CO (%)	0.1	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	370	80	-	80	220	60	-
HTS RPM	730	-	740	-	740	-	800	-

	°F	RH	BARO	°F	RH	BARO
DEQ	59	54	30.10	58	48	30.25
HTS	75	44	30.05	88	20	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(555)	560
DWELL	N/A		N/A
TIMING	+18	(+20)	+19
MECH ADVANCE	25	(29)	29
TOTAL ADVANCE	50	(53)	52
PROPANE IDLE CK	110		180

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Cyl. Power Dist.
EGR -Plugged

Cyl. Power Dist.
EGR -Plugged

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	009.15	106.10	2401.3	27.73	25.16		HI	0126.2	00.0	2397.4	0030	00.0
DATE: 3-15-79		CS (grams)	003.80	025.73	2361.2	17.63	16.00		LOW	0141.5	00.0	1542.7	0040	00.0
		HT (grams)	002.51	023.21	2045.6	24.53	22.26		IDLE	0817.6	00.3	0067.3	0095	00.3
ODOM: 48452		COMP (GPM)	001.22	011.28	0608.0	05.81	05.27	14.1						
	HFET	(GPM)	000.18	000.59	0469.6	07.22		18.82						
RETEST	FTP	CT (grams)	009.36	084.84	2305.3	28.01	24.13		HI	0190.5	00.0	2397.4	0120	00.1
DATE: 4-21-79		CS (grams)	001.95	003.75	2346.6	19.90	17.14		LOW	0166.0	00.0	1602.4	0120	00.1
		HT (grams)	001.39	005.53	2025.5	27.18	23.41		IDLE	0193.5	00.0	0100.7	0120	00.1
ODOM: 49640		COMP (GPM)	000.90	005.78	0599.0	06.32	05.45	14.5						
	HFET	(GPM)	000.11	000.03	0456.2	07.51		19.42						

APPENDIX D

EPA NO.: 51104 MAKE/MODEL: CHEV/IMPALA ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	120	85	65	P	85	55	95	P
DEQ CO (%)	0.0	1.5	0.0	P	0.0	1.8	0.0	P
DEQ RPM	800	-	800	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	480	200	210	-	180	50	40	-
HTS CO (%)	0.0	1.1	0.0	-	0.4	1.1	0.0	-
HTS NOX (ppm)	90	200	80	-	100	210	90	-
HTS RPM	510	-	810	-	900	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	59	55	30.10	52	64	30.40
HTS	70	55	30.04	57	61	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	500	(600)	540
DWELL	N/A		N/A
TIMING	+07	(+06)	+06
MECH ADVANCE	19	(20)	18
TOTAL ADVANCE	38	(38)	37
PROPANE IDLE CK	170		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLES

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed Fast Idle Speed

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.62	318.03	2200.1	08.30	07.26	
DATE: 3-16-79	CS (grams)	006.66	130.56	2545.8	05.88	05.11	
ODOM: 87637	HT (grams)	008.13	189.08	2007.8	08.05	07.04	
	COMP (GPM)	002.52	050.01	0618.2	01.87	01.63	12.6
	HFET (GPM)	001.88	050.00	0454.2	02.46		16.46
RETEST	FTP CT (grams)	016.44	255.93	2254.8	10.13	08.54	
DATE: 4-19-79	CS (grams)	006.01	116.92	2507.6	05.98	05.05	
ODOM: 89046	HT (grams)	006.81	160.36	2045.0	09.40	07.93	
	COMP (GPM)	002.26	042.45	0619.0	02.09	01.77	12.8
	HFET (GPM)	001.51	039.50	0451.2	02.59		17.12

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2184.2	02.9	0670.3	0110	02.9
LOW	1807.8	01.2	0345.1	0100	01.2
IDLE	0320.6	00.0	0415.5	0020	00.0
HI	1805.6	02.1	0766.8	0100	02.5
LOW	0444.4	00.2	0196.2	0050	00.2
IDLE	0172.1	00.0	0313.2	0030	00.0

APPENDIX D

EPA NO.: 51105 MAKE/MODEL: HONDA/CIVIC ENG: 76-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	100	70	140	P	100	50	210	P
DEQ CO (%)	0.1	0.7	0.1	P	0.1	0.5	0.1	P
DEQ RPM	900	-	950	P	750	-	775	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	190	60	190	-	160	30	160	-
HTS CO (%)	0.1	0.7	0.1	-	0.1	0.8	0.1	-
HTS NOX (ppm)	40	80	50	-	40	50	30	-
HTS RPM	700	-	800	-	750	-	780	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	52	74	29.95		52	54	30.10	
HTS	67	53	29.90		70	55	30.03	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(855)	710
DWELL	52	(52)	52
TIMING	000	(+07)	-07
MECH ADVANCE	07	(20)	05
TOTAL ADVANCE	26	(39)	05
PROPANE IDLE CK	220		220

DRIVEABILITY		
ENG STARTING	HARD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING OK

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Idle Speed

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.52	121.16	1229.8	07.23	06.32	
DATE: 3-16-79	CS (grams)	011.02	061.18	1359.6	02.93	02.56	
ODOM: 63958	HT (grams)	008.65	072.34	1005.9	07.45	06.51	
	COMP (GPM)	002.50	020.60	0328.2	01.37	01.20	24.1
	HFET (GPM)	000.54	013.09	0239.8	02.61		33.84
RETEST	FTP CT (grams)	006.31	082.95	1137.5	07.58	06.52	
DATE: 4-17-79	CS (grams)	010.73	063.98	1301.8	02.95	02.53	
ODOM: 64657	HT (grams)	008.47	069.05	0993.1	08.20	06.94	
	COMP (GPM)	002.44	018.53	0314.3	01.45	01.24	25.3
	HFET (GPM)	000.60	014.56	0235.0	02.37		34.14

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0996.9	01.2	1276.9	0090	01.4
LOW	0911.2	00.8	0218.9	0120	00.9
IDLE	1590.5	00.1	0056.4	0160	00.1
HI	0906.3	01.1	1113.0	0080	01.3
LOW	1190.8	00.7	0191.4	0150	00.9
IDLE	1680.2	00.1	0057.7	0280	00.1

EPA NO. 51105

APPENDIX D

EPA NO.: 51106 MAKE/MODEL: HONDA/CIVIC ENG: 76-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	40	120	P	95	40	130	P
DEQ CO (%)	0.8	0.3	0.7	P	0.8	0.7	0.9	P
DEQ RPM	1000	-	1000	P	1050	-	1050	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	180	50	130	-	170	30	160	-
HTS CO (%)	0.4	0.4	0.4	-	0.8	0.5	0.3	-
HTS NOX (ppm)	90	120	90	-	80	100	80	-
HTS RPM	770	-	860	-	830	-	810	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	77	29.90	51	63	30.25
HTS	66	57	29.82	68	42	30.18

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	800	(855)	790	
DWELL	49	(52)	48	
TIMING	+05	(+07)	+05	
MECH ADVANCE	17	(20)	16	
TOTAL ADVANCE	18	(39)	35	
PROPANE IDLE CK	20		170	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	GRABS	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Total Adv. @ 2500
Dwell

Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.20	231.60	1024.2	07.37	06.51	
DATE: 3-16-79	CS (grams)	008.80	072.83	1242.2	03.54	03.09	
ODOM: 51911	HT (grams)	006.37	051.80	0958.4	08.84	07.72	
	COMP (GPM)	002.41	026.93	0297.2	01.57	01.37	25.5
	HFET (GPM)	000.65	010.84	0219.6	03.26		37.16
RETEST	FTP CT (grams)	006.39	107.25	1084.8	09.25	07.80	
DATE: 4-19-79	CS (grams)	006.64	061.54	1284.6	03.99	03.37	
ODOM: 52585	HT (grams)	005.59	049.43	0979.7	09.78	08.25	
	COMP (GPM)	001.68	018.11	0307.9	01.81	01.52	26.0
	HFET (GPM)	00.53	007.52	0224.5	03.94		37.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1361.0	00.8	1805.9	0080	00.8
LOW	1125.4	01.0	0357.2	0080	01.0
IDLE	1976.1	00.2	0092.8	0130	00.2
HI	1107.1	00.6	2099.5	0080	00.6
LOW	1593.6	00.9	0398.5	0120	00.9
IDLE	1816.3	00.2	0126.7	0160	00.2

APPENDIX D

EPA NO.: 51107 MAKE/MODEL: CHEV/IMPALA ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	115	95	P	290	70	190	P
DEQ CO (%)	0.0	2.5	0.0	P	0.0	0.6	0.0	P
DEQ RPM	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	5 Minutes				20 Minutes			
HTS HC (ppm)	210	80	160	-	260	30	260	-
HTS CO (%)	0.0	1.3	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	210	70	-	90	260	80	-
HTS RPM	620	-	660	-	730	-	680	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	49	70	29.90	51	58	30.33
HTS	65	48	29.84	59	47	30.25

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	590
DWELL	N/A		N/A
TIMING	+07	(+06)	+06
MECH ADVANCE	21	(21)	24
TOTAL ADVANCE	42	(39)	40
PROPANE IDLE CK	100		180

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None None

MAINTENANCE None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.58	229.18	2245.1	14.68	12.47	
DATE: 3-20-79	CS (grams)	007.66	159.10	2336.7	06.18	05.34	
ODOM: 63195	HT (grams)	007.94	121.53	2057.4	12.26	10.58	
	COMP (GPM)	002.40	043.59	0596.6	02.60	02.23	13.2
	HFET (GPM)	000.93	020.04	0478.3	03.53		17.30
RETEST	FTP CT (grams)	009.75	172.54	2179.4	11.70	09.91	
DATE: 4-20-79	CS (grams)	005.59	106.73	2398.2	05.78	04.97	
ODOM: 64551	HT (grams)	004.89	090.38	1901.0	08.97	07.66	
	COMP (GPM)	001.68	030.99	0589.2	02.12	01.81	13.8
	HFET (GPM)	000.69	016.99	0485.3	03.31		17.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1089.8	00.7	1027.0	0080	00.8
LOW	1594.6	01.3	0244.0	0100	01.6
IDLE	0282.3	00.0	0146.1	0040	00.0
HI	0407.7	00.1	0933.9	0040	00.2
LOW	1343.7	01.3	0217.7	0090	01.4
IDLE	0267.0	00.0	0115.0	0030	00.1

EPA NO. 51107

APPENDIX D

EPA NO.: 51108 MAKE/MODEL: TOYOTA/CORONA ENG: 133-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	30	50	P	20	40	50	P
DEQ CO (%)	0.9	0.5	0.9	P	0.7	0.5	0.7	P
DEQ RPM	950	-	950	P	950	-	950	P
DEQ QUEUE TIME	20 Minutes				0 Minutes			
HTS HC (ppm)	90	50	90	-	80	20	70	-
HTS CO (%)	0.6	0.4	0.9	-	1.0	0.5	0.9	-
HTS NOX (ppm)	70	110	60	-	50	120	60	-
HTS RPM	930	-	920	-	890	-	930	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	45	29.85	64	35	30.00
HTS	77	35	29.81	80	29	29.98

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(855)	800
DWELL	51	(52)	52
TIMING	+11	(+08)	+10
MECH ADVANCE	23	(23)	24
TOTAL ADVANCE	25	(43)	22
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Total Adv. @ 2500
- Fast Idle Speed
- EGR
- Air Filters

Fast Idle Speed
Ign. Timing @ Idle
Total Adv. @ 2500
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.88	091.17	1664.5	28.46	24.18		HI	0736.8	00.2	2436.8	0040	00.1
DATE: 3-22-79	CS (grams)	002.53	059.56	1940.3	11.95	10.05		LOW	0837.8	00.8	1449.2	0060	00.7
ODOM: 61591	HT (grams)	002.93	036.93	1478.9	26.49	22.14		IDLE	0412.4	00.8	0100.0	0040	00.8
	COMP (GPM)	000.84	015.98	0466.5	05.24	04.41	17.9						
	HFET (GPM)	000.44	006.82	0321.6	08.93		26.58						
RETEST	FTP CT (grams)	005.84	105.61	1637.5	22.29	20.01		HI	0798.0	00.3	2412.5	0050	00.4
DATE: 4-24-79	CS (grams)	001.87	059.53	1956.5	09.02	08.15		LOW	0886.7	01.1	0840.1	0070	01.2
ODOM: 62248	HT (grams)	002.59	039.59	1456.0	20.30	18.35		IDLE	0464.5	00.8	0078.2	0040	00.8
	COMP (GPM)	000.78	017.00	0465.4	04.02	03.63	17.9						
	HFET (GPM)	000.39	007.30	0293.4	06.10		28.97						

EPA NO. 51108

APPENDIX D

EPA NO.: 51109 MAKE/MODEL: FORD/PINTO ENG: 171-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	20	20	25	P	25	20	35	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.2	0.0	P
DEQ RPM	1050	-	1050	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	110	50	80	-	90	50	50	-
HTS CO (%)	2.2	0.0	0.0	-	1.7	0.3	0.1	-
HTS NOX (ppm)	80	200	70	-	90	160	80	-
HTS RPM	810	-	910	-	940	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	25	30.15	70	39	29.90
HTS	77	29	30.22	85	32	30.87

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	750	(700)	690
DWELL	N/A		N/A
TIMING	+13	(+08)	+11
MECH ADVANCE	26	(21)	23
TOTAL ADVANCE	31	(27)	30
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Spark Plug Firing Volt.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Ign. Wires - Condition

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.63	109.42	1992.4	22.37	20.11	
DATE: 3-26-79	CS (grams)	003.97	070.46	2130.0	11.03	09.91	
ODOM: 47502	HT (grams)	003.28	047.35	1760.0	18.58	16.58	
	COMP (GPM)	001.16	019.27	0532.0	04.16	03.73	15.7
	HFET (GPM)	000.39	005.95	0404.9	05.44		21.35
RETEST	FTP CT (grams)	007.40	069.94	1903.7	21.83	20.50	
DATE: 4-27-79	CS (grams)	002.90	018.42	2121.9	14.95	14.25	
ODOM: 48396	HT (grams)	004.37	024.62	1748.7	19.80	18.74	
	COMP (GPM)	001.14	008.34	0525.0	04.75	04.50	16.4
	HFET (GPM)	000.36	004.28	0387.9	05.04		22.41

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0432.1	00.2	1721.8	0030	00.2
LOW	0603.5	00.2	1227.6	0060	00.1
IDLE	0377.1	00.0	0074.5	0030	00.0
HI	0488.9	00.2	1531.7	0040	00.2
LOW	0611.3	00.1	1451.6	0070	00.1
IDLE	0415.5	00.0	0092.8	0045	00.1

EPA NO. 51109

APPENDIX D

EPA NO.: 51110 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	35	30	20	P	40	25	40	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	600	-	600	P	1200	-	1200	F
DEQ QUEUE TIME	0 Minutes				10 Minutes			
HTS HC (ppm)	140	30	210	-	130	30	130	-
HTS CO (%)	0.0	0.0	0.1	-	0.0	0.0	0.1	-
HTS NOX (ppm)	100	380	80	-	100	320	120	-
HTS RPM	1030	-	980	-	970	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	34	30.23	72	43	29.85
HTS	77	31	30.18	79	37	29.87

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(555)	610
DWELL	N/A		N/A
TIMING	+15	(+10)	+15
MECH ADVANCE	22	(18)	22
TOTAL ADVANCE	46	(36)	40
PROPANE IDLE CK	180		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- EGR

Ign. Timing @ Idle
Mech. Adv. @ 2500
EGR
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	004.98	050.66	1861.1	21.87	19.92		HI	0120.1	00.0	0752.5	0010	00.0
DATE:3-27-79	CS (grams)	001.52	004.51	1876.1	12.31	11.21		LOW	0132.4	00.0	1681.2	0020	00.0
	HT (grams)	001.87	004.30	1618.0	11.65	10.61		IDLE	0814.5	00.1	0196.2	0090	00.1
ODOM:68934	COMP (GPM)	000.63	003.83	0479.8	03.78	03.44	18.2						
	HFET (GPM)	000.08	000.19	0356.1	02.52		24.86						
RETEST	FTP CT (grams)	009.50	080.94	1888.0	20.81	19.69		HI	0213.5	00.0	2218.4	0030	00.0
DATE:4-27-79	CS (grams)	001.24	001.28	2175.1	23.61	22.51		LOW	0158.5	00.0	1701.5	0030	00.0
	HT (grams)	001.32	004.45	1721.2	21.65	20.64		IDLE	1195.8	00.1	0262.6	0130	00.1
ODOM:69894	COMP (GPM)	000.81	005.15	0529.1	05.99	05.70	16.4						
	HFET (GPM)	000.08	000.15	0361.9	03.22		24.47						

APPENDIX D

EPA NO.: 51111 MAKE/MODEL: PONTIAC/CATALINA ENG: 400-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	180	360	175	P	50	35	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	950	-	950	P	800	-	825	P
DEQ QUEUE TIME	15 Minutes				25 Minutes			
HTS HC (ppm)	120	50	160	-	80	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	100	160	110	-	100	230	120	-
HTS RPM	950	-	860	-	940	-	970	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	58	30.35	63	47	30.15
HTS	62	41	30.25	75	40	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	630	(655)	680
DWELL	N/A		N/A
TIMING	+15	(+16)	+14
MECH ADVANCE	19	(25)	20
TOTAL ADVANCE	47	(50)	46
PROPANE IDLE CK	250		140

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Fast Idle Speed
Mech. Adv. @ 2500
Cyl. Power Dist.

Fast Idle Speed
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.56	120.51	2667.2	06.24	05.38	
DATE:4-20-79	CS (grams)	001.42	010.63	2772.5	06.67	05.75	
ODOM:44428	HT (grams)	004.68	022.81	2354.6	09.43	08.01	
	COMP (GPM)	000.98	010.06	0701.5	01.96	01.68	12.3
	HFET (GPM)	000.13	001.49	0539.7	03.12		16.35
RETEST	FTP CT (grams)	007.31	080.35	2696.0	08.40	07.30	
DATE:5-17-79	CS (grams)	001.08	005.04	2768.1	08.44	07.29	
ODOM:44821	HT (grams)	003.37	010.83	2410.6	11.78	10.24	
	COMP (GPM)	000.82	006.10	0706.8	02.50	02.17	12.3
	HFET (GPM)	000.11	000.39	0563.1	04.31		15.72

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0265.6	00.0	0813.4	0000	00.0
LOW	0173.8	00.0	0646.0	0000	00.0
IDLE	0167.6	00.0	0228.6	0000	00.0
HI	0135.4	00.0	0948.3	0010	00.0
LOW	0089.5	00.0	0683.3	0000	00.0
IDLE	0086.5	00.0	0253.5	0000	00.0

APPENDIX D

EPA NO.: 51112 MAKE/MODEL: OLDS/CUSTOM CRUISER ENG: 455-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	175	70	175	P	175	20	115	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	750	-	750	P
DEQ QUEUE TIME	15 Minutes				15 Minutes			
HTS HC (ppm)	290	20	260	-	300	30	200	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	70	380	80	-	85	400	80	-
HTS RPM	730	-	720	-	710	-	710	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	71	30.06	53	52	30.35
HTS	62	50	29.93	76	34	30.30

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(555)	580
DWELL	N/A		N/A
TIMING	+11	(+16)	+14
MECH ADVANCE	17	(23)	20
TOTAL ADVANCE	37	(41)	38
PROPANE IDLE CK	90		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR Vacuum Hoses - Cond.	Ign. Timing @ Idle Mech. Adv. @ 2500 Cyl. Power Dist. EGR Vacuum Hoses - Cond.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.33	036.67	2592.8	33.78	29.94	
DATE: 4-11-79	CS (grams)	002.36	009.52	2714.2	27.58	24.28	
ODOM: 69310	HT (grams)	002.50	008.77	2275.1	32.83	28.89	
	COMP (GPM)	000.81	004.04	0683.5	08.11	07.15	12.8
	HFET (GPM)	000.17	000.50	0519.9	08.29		17.01
RETEST	FTP CT (grams)	005.22	016.91	2519.5	30.99	27.34	
DATE: 5-11-79	CS (grams)	001.87	002.12	2635.5	22.90	20.07	
ODOM: 70087	HT (grams)	002.35	005.31	2221.1	32.46	28.45	
	COMP (GPM)	000.73	001.66	0664.7	07.30	06.41	13.2
	HFET (GPM)	000.15	000.15	0474.5	07.32		18.66

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0138.5	00.0	2196.9	0040	00.0
LOW	0190.5	00.0	1855.5	0060	00.0
IDLE	0224.1	00.0	0129.4	0060	00.0
HI	0132.4	00.0	2110.9	0020	00.0
LOW	0169.1	00.0	1671.7	0030	00.0
IDLE	0260.8	00.0	0136.5	0040	00.0

APPENDIX D

EPA NO.: 51113 MAKE/MODEL: HONDA/CVCC ENG: 91-3V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	95	165	P	135	105	180	P
DEQ CO (%)	0.3	0.3	0.2	P	0.5	0.5	0.3	P
DEQ RPM	900	-	900	P	1000	-	1000	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	120	50	60	-	150	50	170	-
HTS CO (%)	0.0	0.2	0.0	-	0.3	0.3	0.3	-
HTS NOX (ppm)	30	60	40	-	100	140	90	-
HTS RPM	760	-	870	-	950	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	48	76	29.85	55	56	30.00
HTS	68	46	29.79	75	37	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	750	(855)	860
DWELL	55	(52)	55
TIMING	-01	(00)	+07
MECH ADVANCE	12	(13)	23
TOTAL ADVANCE	20	(21)	21
PROPANE IDLE CK	80		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed

Ign. Timing @ Idle
Mech. Adv. @ 2500
Spark Plug Firing Volt.
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.03	027.04	1162.0	10.79	09.76	
DATE: 4-12-79	CS (grams)	001.76	015.85	1249.4	06.10	05.59	
ODOM: 42634	HT (grams)	011.08	019.25	1029.3	10.41	09.48	
	COMP (GPM)	001.25	005.13	0311.4	02.22	02.03	27.4
	HFET (GPM)	000.06	001.63	0211.4	02.82		41.41
RETEST	FTP CT (grams)	002.67	016.80	1028.4	08.57	07.53	
DATE: 5-09-79	CS (grams)	001.65	013.57	1162.7	05.05	04.43	
ODOM: 43029	HT (grams)	003.17	012.20	0933.9	08.57	07.40	
	COMP (GPM)	000.61	003.70	0285.0	01.82	01.59	30.3
	HFET (GPM)	000.08	001.66	0195.9	01.16		44.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0585.1	00.1	1533.2	0040	00.1
LOW	0352.6	00.1	0499.4	0030	00.1
IDLE	0961.4	00.2	0079.2	0060	00.2
HI	0325.1	00.1	1600.0	0010	00.2
LOW	0211.9	00.1	0456.4	0005	00.1
IDLE	0817.6	00.2	0062.5	0020	00.2

EPA NO. 51113

APPENDIX D

EPA NO.: 51114 MAKE/MODEL: FORD/ELITE ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	35	55	P	60	25	55	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.1	0.0	P
DEQ RPM	675	-	700	P	750	-	750	P
DEQ QUEUE TIME	10 Minutes				10 Minutes			
HTS HC (ppm)	80	20	150	-	60	20	70	-
HTS CO (%)	0.2	0.2	0.1	-	0.3	0.3	0.1	-
HTS NOX (ppm)	80	220	80	-	80	220	90	-
HTS RPM	740	-	750	-	710	-	680	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	53	30.05	60	31	30.35
HTS	69	32	29.95	82	25	30.29

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	520	(655)	510
DWELL	N/A		N/A
TIMING	+02	(+06)	+05
MECH ADVANCE	16	(19)	16
TOTAL ADVANCE	29	(43)	18
PROPANE IDLE CK	150		140

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS:

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Cyl. Power Dist.
EGR Plugged

Idle Speed
EGR plugged
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.47	078.06	2772.8	17.84	15.94	
DATE: 4-12-79	CS (grams)	005.12	036.74	2854.8	12.75	11.48	
ODOM: 24526	HT (grams)	004.16	032.26	2391.8	18.51	16.55	
	COMP (GPM)	001.48	011.83	0721.4	04.13	03.70	11.9
	HFET (GPM)	000.39	003.20	0513.0	03.78		17.08
RETEST	FTP CT (grams)	006.55	063.38	2653.8	17.13	14.93	
DATE: 5-11-79	CS (grams)	004.13	022.34	2745.8	10.43	09.15	
ODOM: 25029	HT (grams)	003.56	016.94	2290.2	17.30	15.33	
	COMP (GPM)	001.20	007.90	0692.3	03.69	03.24	12.5
	HFET (GPM)	000.33	002.54	0563.0	05.29		15.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0351.2	00.1	1216.2	0000	00.1
LOW	0586.9	00.1	0680.0	0010	00.2
IDLE	0657.2	00.0	0158.3	0015	00.1
HI	0262.5	00.1	1199.2	0010	00.1
LOW	0397.1	00.1	0658.1	0020	00.1
IDLE	0534.8	00.0	0163.1	0050	00.1

APPENDIX D

EPA NO.: 51115 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	25	40	P	20	15	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	875	-	975	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	50	20	40	-	60	30	50	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	500	60	-	80	430	80	-
HTS RPM	770	-	770	-	830	-	840	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	76	29.90	54	50	30.35
HTS	67	49	29.80	77	35	30.31

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(600)	600
DWELL	N/A		N/A
TIMING	+12	(+06)	+11
MECH ADVANCE	22	(21)	22
TOTAL ADVANCE	36	(29)	35
PROPANE IDLE CK	20		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS:
- Ign. Timing @ Idle
- Total Adv. @ 2500
- EGR

Ign. Timing @ Idle
Total Adv. @ 2500
EGR
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.08	036.20	2209.5	36.01	31.44	
DATE: 4-13-79	CS (grams)	001.86	002.53	2139.5	26.75	23.19	
ODOM: 29815	HT (grams)	001.93	005.03	1882.3	32.99	28.80	
	COMP (GPM)	000.63	002.80	0555.0	08.14	07.08	15.8
	HFET (GPM)	000.21	000.20	0441.0	08.48		20.07
RETEST	FTP CT (grams)	003.99	021.96	2235.6	40.39	35.28	
DATE: 5-11-79	CS (grams)	001.77	000.78	2157.5	28.29	24.71	
ODOM: 30183	HT (grams)	002.02	004.42	1875.3	34.89	30.47	
	COMP (GPM)	000.62	001.70	0558.4	08.74	07.63	15.8
	HFET (GPM)	000.20	000.16	0427.3	08.39		20.71

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0233.3	00.0	2008.3	0040	00.0
LOW	0273.1	00.0	1602.4	0040	00.0
IDLE	0282.3	00.0	0174.7	0040	00.0
HI	0222.7	00.0	2436.8	0010	00.0
LOW	0250.3	00.0	2436.8	0030	00.0
IDLE	0274.7	00.0	1883.5	0030	00.0

EPA NO. 51115

APPENDIX D

EPA NO.: 51116 MAKE/MODEL: FORD/LTD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	215	80	260	P	110	60	140	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	1000	P	950	-	950	P
DEQ QUEUE TIME	10 Minutes				15 Minutes			
HTS HC (ppm)	310	70	350	-	120	60	160	-
HTS CO (%)	0.1	0.1	0.1	-	0.1	0.1	0.0	-
HTS NOX (ppm)	40	130	40	-	80	140	50	-
HTS RPM	870	-	890	-	1020	-	920	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	60	30.30	58	48	30.25
HTS	69	39	30.10	69	39	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(655)	620
DWELL	N/A		N/A
TIMING	+13	(+06)	+13
MECH ADVANCE	23	(19)	22
TOTAL ADVANCE	38	(43)	34
PROPANE IDLE CK	370		420

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Spark Plug Firing Volt.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filter - Condition

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Distributor Cap & Rotor
Replaced Radiator Hose

PERFORMED BY: Independent Repair Garage
COST: $27.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	025.93	044.03	2864.6	33.69	28.42	
DATE: 4-17-79	CS (grams)	009.78	008.94	3069.9	12.37	10.44	
ODOM: 97088	HT (grams)	010.04	018.77	2483.3	25.36	21.59	
	COMP (GPM)	003.55	005.14	0762.3	05.51	04.66	11.3
	HFET (GPM)	001.11	002.78	0539.0	07.29		16.21
RETEST	FTP CT (grams)	021.92	035.87	2845.2	31.50	26.99	
DATE: 5-10-79	CS (grams)	009.67	013.27	3137.1	11.93	10.22	
ODOM: 97804	HT (grams)	008.88	016.12	2526.9	25.43	21.79	
	COMP (GPM)	003.22	005.05	0773.5	05.33	04.57	11.2
	HFET (GPM)	000.98	002.97	0543.2	07.23		16.10

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0845.1	00.1	1547.5	0070	00.1
LOW	1083.7	00.0	0370.5	0100	00.1
IDLE	1334.6	00.0	0150.9	0140	00.0
HI	0718.4	00.1	1609.3	0070	00.1
LOW	0831.7	00.0	0383.9	0080	00.1
IDLE	1342.7	00.0	0151.0	0140	00.1

EPA NO. 51116

APPENDIX D

EPA NO.: 51117 MAKE/MODEL: CHEV/MONTE CARLO ENG:350-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	25	25	60	P	100	25	95	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P
DEQ RPM	750	-	700	P	700	-	700	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	330	20	300	-	290	30	270	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	220	40	-	50	280	40	-
HTS RPM	720	-	670	-	610	-	650	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	58	30.15	60	40	30.45
HTS	62	54	30.10	71	33	30.36

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	500	(600)	610	
DWELL	N/A		N/A	
TIMING	+03	(+06)	+02	
MECH ADVANCE	18	(21)	20	
TOTAL ADVANCE	34	(39)	39	
PROPANE IDLE CK	510		520	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR	Ign. Timing @ Idle Cyl. Power Dist. EGR

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Stalling
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	006.59	080.44	2467.8	20.32	17.39		HI	0374.0	00.0	1306.4	0060	00.1
DATE:4-14-79	CS	(grams)	001.43	002.15	2440.9	11.49	09.83		LOW	0141.5	00.0	0731.0	0040	00.1
ODOM:55205	HT	(grams)	002.43	007.68	2047.1	17.71	15.21		IDLE	0233.3	00.0	0062.5	0050	00.0
	COMP	(GPM)	000.75	005.48	0622.5	04.04	03.46	14.0						
	HFET	(GPM)	000.08	000.36	0471.0	04.75		18.79						
RETEST	FTP CT	(grams)	007.11	111.21	2319.2	16.87	14.69		HI	0201.3	00.0	1531.7	0040	00.1
DATE:5-30-79	CS	(grams)	001.49	002.89	2551.0	10.88	09.64		LOW	0100.3	00.0	0718.8	0040	00.0
ODOM:56039	HT	(grams)	001.68	006.43	2078.1	17.17	15.20		IDLE	0219.7	00.0	0066.1	0050	00.0
	COMP	(GPM)	000.73	007.25	0631.0	03.72	03.28	13.8						
	HFET	(GPM)	000.08	000.35	0459.9	04.80		19.25						

EPA NO. 51117

APPENDIX D

EPA NO.: 51118 MAKE/MODEL: CHRYSLER/CORDOBA ENG: 360-2V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	30	20	35	P	115	80	135	P
DEQ CO (%)	0.1	0.0	0.0	P	4.0	1.1	3.7	F
DEQ RPM	850	-	850	P	750	-	750	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	160	30	150	-	140	40	140	-
HTS CO (%)	4.3	0.2	4.2	-	5.0	0.5	4.4	-
HTS NOX (ppm)	100	400	120	-	120	390	120	-
HTS RPM	690	-	730	-	730	-	730	-

	°F	RH	BARO	°F	RH	BARO
DEQ	56	51	30.15	68	48	30.15
HTS	66	40	30.10	80	44	30.03

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	670	(755)	670
DWELL	N/A		N/A
TIMING	+07	(+06)	+06
MECH ADVANCE	20	(23)	19
TOTAL ADVANCE	42	(45)	43
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES, STRETCHY	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Mech. Adv. @ 2500
- Spark Plug Firing Volt.
- EGR - Functional
- Vacuum Hoses - Routing

Idle Speed
Mech. Adv. @ 2500
EGR - Functional
Vacuum Hoses - Routing

MAINTENANCE

MAINT PRIOR TO RETEST
None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.83	312.37	2322.9	17.38	14.87	
DATE: 4-18-79	CS (grams)	010.32	257.51	2460.6	16.28	13.93	
ODOM: 26730	HT (grams)	006.81	147.71	2074.4	23.47	19.94	
	COMP (GPM)	002.57	063.47	0618.9	04.95	04.22	12.2
	HFET (GPM)	000.64	012.10	0469.3	05.87		18.09
RETEST	FTP CT (grams)	006.02	094.41	2426.5	20.54	17.53	
DATE: 5-29-79	CS (grams)	000.92	002.82	2816.7	19.43	16.74	
ODOM: 26817	HT (grams)	002.16	013.20	2213.0	27.43	23.26	
	COMP (GPM)	000.63	006.79	0682.9	05.85	05.00	12.7
	HFET (GPM)	000.12	000.66	0466.7	07.67		18.94

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0274.7	00.0	2169.8	0050	00.0
LOW	0972.4	00.3	1223.5	0120	00.6
IDLE	2594.2	04.7	0092.8	0190	04.8
HI	0106.4	00.0	2218.4	0030	00.0
LOW	0112.6	00.0	1267.2	0030	00.0
IDLE	0103.4	00.0	0124.3	0030	00.0

EPA NO 51118

APPENDIX D

EPA NO.: 51119 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	20	20	25	P	20	20	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	900	P	875	-	900	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	20	10	20	-	30	20	20	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	310	50	-	60	320	70	-
HTS RPM	800	-	840	-	890	-	870	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	52	30.10	62	44	30.35
HTS	69	35	30.00	83	34	30.30

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(600)	610
DWELL	N/A		N/A
TIMING	+06	(+06)	+07
MECH ADVANCE	22	(21)	19
TOTAL ADVANCE	37	(29)	25
PROPANE IDLE CK	60		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES	STUMBLES
IDLE LIMITER CAPS:	OK	MISSING

PROBLEM AREAS: Total Adv. @ 2500
Spark Plug Firing Volt.
EGR - Func. Check

EGR - Func. Check

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	002.12	013.65	2174.8	25.96	21.95	
DATE:4-17-79	CS (grams)	000.92	000.08	2272.0	17.77	15.03	
ODOM:41686	HT (grams)	000.88	005.24	1873.5	22.69	19.31	
	COMP (GPM)	000.31	001.19	0570.0	05.58	04.73	15.5
	HFET (GPM)	000.11	000.07	0416.9	05.84		21.25
RETEST	FTP CT (grams)	002.36	015.44	2092.3	24.72	23.22	
DATE:5-15-79	CS (grams)	001.01	000.12	2248.5	18.12	16.90	
ODOM:42240	HT (grams)	001.66	002.89	1853.3	22.65	21.73	
	COMP (GPM)	000.40	001.12	0560.6	05.55	05.24	15.7
	HFET (GPM)	000.12	000.09	0409.3	06.24		21.64

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0352.6	00.0	1461.6	0030	00.1
LOW	0242.5	00.0	0824.1	0020	00.1
IDLE	0273.1	00.0	0110.3	0020	00.1
HI	0124.8	00.0	1585.1	0020	00.0
LOW	0127.9	00.0	0852.3	0020	00.0
IDLE	0207.4	00.0	0109.7	0030	00.0

EPA NO.51119

APPENDIX D

EPA NO.: 51120 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	105	50	150	P	70	35	145	P
DEQ CO (%)	0.8	0.1	0.8	P	0.7	0.4	0.5	P
DEQ RPM	850	-	850	P	900	-	900	P
DEQ QUEUE TIME	21 Minutes				20 Minutes			
HTS HC (ppm)	140	40	130	-	95	60	130	-
HTS CO (%)	0.6	0.1	0.5	-	0.5	0.1	0.5	-
HTS NOX (ppm)	80	210	70	-	70	210	60	-
HTS RPM	780	-	850	-	920	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	57	30.00	63	47	30.15
HTS	63	46	29.93	72	82	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	700	(700)	870
DWELL	56	(52)	54
TIMING	+07	(+10)	+11
MECH ADVANCE	32	(23)	38
TOTAL ADVANCE	48	(41)	30
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dwell
- EGR

- Idle Speed
- EGR
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dist. Point Volt. Drop
- Rotor Gap Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.17	044.98	1058.0	21.90	18.61	
DATE: 4-18-79	CS (grams)	009.20	023.41	1089.5	14.53	12.35	
ODOM: 47820	HT (grams)	007.54	015.20	0908.6	21.17	18.00	
	COMP (GPM)	002.15	006.86	0275.0	04.80	04.08	30.3
	HFET (GPM)	000.85	001.87	0210.8	05.98		40.97
RETEST	FTP CT (grams)	005.42	030.26	1055.1	20.46	17.95	
DATE: 5-17-79	CS (grams)	009.19	019.71	1140.8	13.39	11.75	
ODOM: 48875	HT (grams)	007.22	013.48	0924.7	19.93	17.37	
	COMP (GPM)	002.08	005.39	0282.9	04.47	03.92	29.8
	HFET (GPM)	000.78	001.59	0212.8	06.15		40.73

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1134.6	00.1	2436.8	0150	00.1
LOW	1859.8	00.1	1340.0	0220	00.1
IDLE	1437.5	00.4	0085.5	0220	00.3
HI	0998.1	00.1	2397.4	0060	00.1
LOW	1750.6	00.1	1234.8	0120	00.1
IDLE	1160.2	00.4	0074.5	0080	00.4

EPA NO. 51120

APPENDIX D

EPA NO.: 51121 MAKE/MODEL: CHEV/CAMARO ENG: 350-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	35	55	P	50	75	50	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	2.4	0.0	P
DEQ RPM	850	-	850	P	900	-	900	P
DEQ QUEUE TIME	4 Minutes				20 Minutes			
HTS HC (ppm)	120	20	90	-	120	30	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.5	0.0	-
HTS NOX (ppm)	80	100	80	-	70	180	80	-
HTS RPM	770	-	750	-	780	-	800	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	59	30.05	65	48	30.00
HTS	64	43	29.96	86	33	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	510
DWELL	N/A		N/A
TIMING	+05	(+06)	+06
MECH ADVANCE	22	(21)	21
TOTAL ADVANCE	37	(39)	39
PROPANE IDLE CK	240		190

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Spark Plug Firing Volt.
Air Filters

Idle Speed
Spark Plug Firing Volt.
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.74	156.27	2168.9	10.41	08.92	
DATE:4-19-79	CS (grams)	001.16	012.88	2309.0	04.96	04.26	
ODOM:27215	HT (grams)	002.91	059.68	1935.6	08.31	07.06	
	COMP (GPM)	000.88	015.21	0579.3	01.89	01.62	14.6
	HFET (GPM)	000.18	004.60	0452.2	02.60		19.28
RETEST	FTP CT (grams)	007.79	121.19	2067.1	09.54	08.53	
DATE:5-16-79	CS (grams)	001.06	010.65	2259.8	04.17	03.73	
ODOM:27721	HT (grams)	002.61	045.05	1852.9	07.16	06.40	
	COMP (GPM)	000.79	011.79	0560.6	01.65	01.47	15.2
	HFET (GPM)	000.13	002.74	0426.4	02.34		20.57

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0290.0	00.1	0510.1	0100	00.4
LOW	0112.6	00.0	0299.0	0100	00.0
IDLE	0057.5	00.0	0092.8	0090	00.0
HI	0340.4	00.2	0611.6	0000	00.0
LOW	0120.1	00.0	0284.5	0000	00.0
IDLE	0071.2	00.0	0112.7	0000	00.0

EPA NO.: 51122 MAKE/MODEL: FORD/LTD WAGON ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	25	25	35	P	20	15	40	P
DEQ CO (%)	0.2	0.1	0.3	P	0.4	0.1	0.3	P
DEQ RPM	750	-	800	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				0 Minutes			
HTS HC (ppm)	30	20	30	-	40	20	30	-
HTS CO (%)	0.3	0.1	0.3	-	0.5	0.1	0.5	-
HTS NOX (ppm)	70	100	80	-	80	110	80	-
HTS RPM	760	-	790	-	800	-	800	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	59	30.05	70	40	29.95
HTS	75	34	29.96	83	37	29.90

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	610	(700)	590
DWELL	N/A		N/A
TIMING	+03	(+06)	+06
MECH ADVANCE	08	(13)	12
TOTAL ADVANCE	21	(37)	23
PROPANE IDLE CK	90		10

DRIVEABILITY		
ENG STARTING	HARD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Idle Speed
Total Adv. @ 2500
Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Independent Repair Garage
COST: $7.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.39	079.71	3637.6	09.23	07.97	
DATE:4-18-79	CS (grams)	001.53	038.51	3674.2	06.38	05.42	
ODOM:87564	HT (grams)	002.17	031.53	2966.6	08.68	07.42	
	COMP (GPM)	000.56	012.10	0923.9	02.04	01.74	09.4
	HFET (GPM)	000.24	001.52	0631.0	02.05		13.99
RETEST	FTP CT (grams)	005.26	064.52	3450.0	08.23	07.21	
DATE:5-16-79	CS (grams)	001.47	042.44	3698.1	06.24	05.47	
ODOM:88439	HT (grams)	002.40	040.26	2955.7	07.91	06.92	
	COMP (GPM)	000.68	012.42	0915.5	01.91	01.67	09.5
	HFET (GPM)	000.19	002.62	0624.4	01.94		14.10

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0117.1	00.0	0356.2	0080	00.0
LOW	0120.1	00.0	0136.5	0090	00.0
IDLE	0184.4	00.2	0057.7	0100	00.2
HI	0397.1	00.1	0366.9	0040	00.1
LOW	0241.1	00.0	0366.9	0020	00.1
IDLE	0461.4	00.4	0107.3	0040	00.4

EPA NO.51122

APPENDIX D

EPA NO.: 51123 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	25	155	P	140	50	115	P
DEQ CO (%)	1.1	0.3	0.9	P	0.7	0.3	0.7	P
DEQ RPM	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	90	30	100	-	140	40	130	-
HTS CO (%)	0.9	0.5	0.8	-	0.7	0.4	0.5	-
HTS NOX (ppm)	60	90	60	-	60	100	60	-
HTS RPM	1010	-	920	-	860	-	930	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	50	30.20	66	40	30.15
HTS	67	58	30.12	77	35	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(855)	900
DWELL	53	(57)	54
TIMING	+16	(+12)	+15
MECH ADVANCE	23	(27)	26
TOTAL ADVANCE	30	(41)	23
PROPANE IDLE CK	0		50

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Dwell

Fast Idle Speed
Ign. Timing @ Idle
Total Adv. @ 2500
Dist. Point Volt. Drop
Spark Plug Firing Volt.
Dwell

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	004.59	053.07	1329.5	15.27	12.88		HI	0884.9	00.2	1573.8	0090	00.2
DATE: 4-19-79		CS (grams)	002.21	043.11	1581.6	05.58	04.70		LOW	0545.3	00.5	0468.4	0080	00.5
ODOM: 40318		HT (grams)	002.93	027.93	1213.1	11.94	10.07		IDLE	0738.0	00.7	0055.4	0100	00.8
		COMP (GPM)	000.78	010.91	0379.3	02.53	02.13	22.2						
	HFET	(GPM)	000.45	004.21	0245.2	03.58		35.02						
RETEST	FTP	CT (grams)	004.48	055.87	1250.4	12.30	10.76		HI	0746.0	00.6	1296.3	0060	00.6
DATE: 5-17-79		CS (grams)	002.03	044.08	1585.2	04.83	04.22		LOW	0660.3	01.2	0277.2	0050	01.2
ODOM: 40908		HT (grams)	003.12	037.97	1191.7	10.07	08.60		IDLE	0703.1	00.8	0058.8	0060	00.8
		COMP (GPM)	000.76	011.97	0373.6	02.11	01.83	22.5						
	HFET	(GPM)	000.38	005.88	0239.8	03.36		35.44						

EPA NO.51123

APPENDIX D

EPA NO.: 51124 MAKE/MODEL: AMC/PACER ENG: 258-1V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	40	80	45	P	60	70	90	P
DEQ CO (%)	0.6	0.5	0.5	P	1.2	1.8	1.3	P
DEQ RPM	950	-	950	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				2 Minutes			
HTS HC (ppm)	60	10	50	-	70	50	80	-
HTS CO (%)	0.6	0.2	0.7	-	0.8	1.4	0.8	-
HTS NOX (ppm)	140	160	170	-	150	250	150	-
HTS RPM	910	-	930	-	920	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	53	56	30.25	64	44	30.35
HTS	69	39	30.16	86	31	30.28

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	700	(550)	710
DWELL	N/A		N/A
TIMING	+11	(+03)	+07
MECH ADVANCE	24	(18)	22
TOTAL ADVANCE	25	(34)	22
PROPANE IDLE CK	80		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Water Pump

PERFORMED BY: Owner
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

EPA NO.: 51124 MAKE/MODEL : AMC/PACER ENG: 258-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	45	25	60	P	60	25	85	P
DEQ CO (%)	0.5	0.1	0.3	P	0.7	0.3	0.5	P
DEQ RPM	700	-	700	P	700	-	700	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	60	20	50	-	80	20	70	-
HTS CO (%)	0.4	0.1	0.2	-	0.3	0.2	0.3	-
HTS NOX (ppm)	120	180	130	-	120	220	130	-
HTS RPM	670	-	650	-	650	-	660	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	43	30.25	62	54	30.20
HTS	77	35	30.24	75	40	30.16

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	600	(550)	620
DWELL	N/A		N/A
TIMING	+04	(+03)	+04
MECH ADVANCE	19	(18)	17
TOTAL ADVANCE	25	(34)	22
PROPANE IDLE CK	60		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	SLIPS	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Total Adv. @ 2500
Spk Plg Frng Volt.

Total Adv. @ 2500
Spk Plg Frng Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
Adjusted Carburetor
Replaced Air Filter
Adjusted Idle Speed
Adjusted Timing

MAINT PRIOR TO RETEST
None

PERFORMED BY: HTS
COST: $5.00
MANHOURS: 1 Hour
OWNER'S DRIVEABILITY EVAL: N/A
OWNER SATISFIED WITH VEH: N/A

Hardstarting
Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.49	092.48	2074.4	08.14	06.87	
DATE: 4-19-79	CS (grams)	003.92	044.53	2095.2	08.53	07.20	
	HT (grams)	004.31	032.68	1834.7	07.89	06.65	
ODOM: 61164	COMP (GPM)	001.16	013.72	0537.7	02.20	01.86	15.8
	HFET (GPM)	000.54	009.95	0405.4	01.68		20.98
RETEST	FTP CT (grams)	005.56	153.54	2479.5	07.92	07.09	
DATE: 5-15-79	CS (grams)	006.41	123.23	2294.3	06.47	05.86	
	HT (grams)	006.29	088.56	1761.0	05.94	05.38	
ODOM: 61731	COMP (GPM)	001.65	031.96	0581.9	01.77	01.60	13.9
	HFET (GPM)	000.55	011.85	0429.8	01.58		19.70
HTS MAINT RETEST	FTP CT (grams)	004.13	086.79	2293.0	06.78	05.99	
DATE: 5-16-79	CS (grams)	003.95	061.08	2164.3	05.85	05.17	
	HT (grams)	004.51	061.72	1860.3	05.40	04.82	
ODOM: 61775	COMP (GPM)	001.11	017.81	0561.4	01.58	01.40	15.0
	HFET (GPM)	000.33	008.38	0455.2	01.41		18.89
RETEST	FTP CT (grams)	005.09	103.62	2331.6	07.22	06.45	
DATE: 6-15-79	CS (grams)	003.71	044.39	2262.8	06.50	05.81	
	HT (grams)	003.82	038.98	1990.4	06.48	05.79	
ODOM: 62368	COMP (GPM)	001.08	014.82	0586.7	01.77	01.58	14.5
	HFET (GPM)	000.25	004.31	0514.6	01.81		16.98

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0132.4	00.3	0454.1	0000	00.3
LOW	0936.9	00.5	0678.5	0030	00.5
IDLE	1148.0	00.6	0248.7	0080	00.5
HI	0843.9	00.5	0439.7	0050	00.6
LOW	1559.9	01.2	0738.2	0090	01.3
IDLE	1853.7	01.2	0252.9	0120	01.2
HI	0175.2	00.2	0329.9	0000	00.2
LOW	1484.4	01.0	0621.2	0060	01.0
IDLE	1248.9	00.2	0160.4	0070	00.2
HI	0111.0	00.1	0377.7	0010	00.1
LOW	1040.9	00.5	0745.3	0060	00.4
IDLE	1389.6	00.2	0196.2	0090	00.2

EPA NO. 51124

APPENDIX D

EPA NO.: 51125 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	20	20	30	P	20	25	35	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	700	P	750	-	850	P
DEQ QUEUE TIME	5 Minutes				0 Minutes			
HTS HC (ppm)	90	50	50	-	50	30	50	-
HTS CO (%)	0.4	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	380	80	-	90	280	80	-
HTS RPM	730	-	740	-	740	-	730	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	52	56	30.32		64	49	30.35	
HTS	65	39	30.24		75	40	30.30	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(655)	570
DWELL	N/A		N/A
TIMING	+04	(+12)	+03
MECH ADVANCE	13	(19)	13
TOTAL ADVANCE	32	(40)	34
PROPANE IDLE CK	90		50

DRIVEABILITY		
ENG STARTING	GOOD	FALSE
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE — MAINT PRIOR TO RETEST
- Replaced Spark Plugs
- Adjusted Carburetor
- Adjusted Idle Speed

PERFORMED BY: Auto Dealer
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	005.13	063.20	2602.0	10.31	08.89		HI	0380.1	00.0	0809.8	0040	00.1
DATE: 4-20-79		CS (grams)	002.15	002.22	2614.3	14.50	12.39		LOW	0364.9	00.0	0721.5	0060	00.0
		HT (grams)	002.99	016.48	2197.1	13.08	11.18		IDLE	0279.2	00.0	0095.9	0030	00.0
ODOM: 33531		COMP (GPM)	000.81	005.17	0664.7	03.52	03.01	13.1						
	HFET	(GPM)	000.38	001.33	0506.5	03.70		17.40						
RETEST	FTP	CT (grams)	005.00	058.55	2467.1	08.76	07.72		HI	0351.2	00.0	0806.1	0030	00.1
DATE: 5-19-79		CS (grams)	002.02	002.06	2629.5	12.77	11.17		LOW	0287.0	00.0	0544.1	0030	00.0
		HT (grams)	002.87	017.46	2145.0	11.16	09.77		IDLE	0213.5	00.0	0097.6	0020	00.0
ODOM: 34258		COMP (GPM)	000.77	004.96	0655.1	03.05	02.67	13.3						
	HFET	(GPM)	000.36	000.96	0471.3	03.30		18.71						

EPA NO. 51125

EPA NO.: 51126 MAKE/MODEL: FORD/ELITE ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	115	35	145	P	25	15	25	P
DEQ CO (%)	0.1	0.0	0.1	P	0.6	0.2	0.6	P
DEQ RPM	900	-	900	P	850	-	850	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	60	10	140	-	70	20	50	-
HTS CO (%)	0.9	0.1	0.1	-	0.9	0.6	0.7	-
HTS NOX (ppm)	40	110	40	-	80	100	80	-
HTS RPM	620	-	780	-	730	-	620	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	52	54	30.60		74	36	30.15	
HTS	65	39	30.24		88	37	30.10	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	740	(700)	600	
DWELL	N/A		N/A	
TIMING	+08	(+08)	+08	
MECH ADVANCE	17	(15)	16	
TOTAL ADVANCE	23	(39)	20	
PROPANE IDLE CK	90		130	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Total Adv. @ 2500
Spk Plg Frng Volt.

Idle Speed
Total Adv. @ 2500
Spk Plg Frng Volt.

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced EGR Hose

PERFORMED BY: Independent Repair Garage
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.88	048.95	3065.6	12.80	10.80	
DATE:4-20-79	CS (grams)	002.50	022.26	3323.2	08.16	06.95	
	HT (grams)	003.35	035.01	2666.9	11.06	09.42	
ODOM:33839	COMP (GPM)	001.04	008.44	0821.5	02.66	02.26	10.6
	HFET (GPM)	000.43	003.12	0604.1	03.28		14.53
RETEST	FTP CT (grams)	007.02	053.54	2905.7	10.31	09.75	
DATE:6-05-79	CS (grams)	002.25	025.24	3326.9	07.12	06.73	
	HT (grams)	003.52	037.17	2675.1	09.52	09.01	
ODOM:35198	COMP (GPM)	000.97	009.26	0813.5	02.26	02.14	10.7
	HFET (GPM)	000.39	003.49	0578.0	02.58		15.17

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0236.4	00.1	0559.1	0020	00.1
LOW	0325.1	00.0	0427.8	0030	00.0
IDLE	0447.4	00.1	0110.3	0040	00.1
HI	0279.2	00.1	0449.3	0020	00.1
LOW	0453.6	00.0	0377.7	0030	00.0
IDLE	0468.9	00.1	0110.3	0040	00.1

EPA NO.51126

APPENDIX D

EPA NO.: 51127 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	60	45	110	P	70	45	105	P
DEQ CO (%)	0.4	0.1	0.4	P	0.5	0.1	0.5	P
DEQ RPM	900	-	950	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	50	40	90	-	90	50	100	-
HTS CO (%)	0.3	0.1	0.3	-	0.3	0.7	0.3	-
HTS NOX (ppm)	80	160	60	-	70	160	60	-
HTS RPM	1290	-	790	-	910	-	780	-

	°F	RH	BARO	°F	RH	BARO
DEQ	54	50	30.30	63	50	30.35
HTS	73	46	30.10	77	42	30.29

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	770	(700)	630
DWELL	53	(52)	52
TIMING	+05	(+10)	+05
MECH ADVANCE	18	(23)	17
TOTAL ADVANCE	43	(41)	35
PROPANE IDLE CK	0		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Spk Plg Frng Volt.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	005.84	048.70	1079.4	15.76	14.08		HI	1021.4	00.1	2347.0	0080	00.1
DATE: 4-25-79	CS (grams)	007.94	019.23	1209.0	09.23	08.10		LOW	1706.8	00.1	0912.9	0150	00.1
ODOM: 42395	HT (grams)	006.45	013.52	0948.3	14.36	12.83		IDLE	1666.2	00.3	0121.9	0170	00.3
	COMP (GPM)	001.88	006.38	0295.2	03.23	02.86	28.5						
	HFET (GPM)	000.78	001.95	0218.6	04.59		39.56						
RETEST	FTP CT (grams)	005.39	043.28	1076.1	14.81	14.73		HI	1027.5	00.1	2315.4	0080	00.1
DATE: 5-21-79	CS (grams)	007.40	023.66	1156.7	10.21	10.08		LOW	0752.1	00.1	0279.6	0070	00.1
ODOM: 42858	HT (grams)	005.85	016.18	0947.6	13.71	12.86		IDLE	0709.3	00.4	0061.2	0070	00.4
	COMP (GPM)	001.74	006.87	0287.9	03.25	03.17	29.1						
	HFET (GPM)	000.72	002.17	0211.1	04.53		40.91						

EPA NO. 51127

APPENDIX D

EPA NO.: 51128 MAKE/MODEL: PLYMOUTH/FURY ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	60	25	70	P	35	60	85	P
DEQ CO (%)	0.3	0.1	0.1	P	0.0	0.6	0.0	P
DEQ RPM	900	-	900	P	800	-	850	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	680	90	600	-	220	60	350	-
HTS CO (%)	0.2	0.1	0.2	-	0.1	0.2	0.1	-
HTS NOX (ppm)	100	220	100	-	65	220	60	-
HTS RPM	1100	-	1120	-	680	-	670	-

	°F	RH	BARO	°F	RH	BARO
DEQ	57	49	30.30	68	36	30.20
HTS	69	39	30.22	68	58	30.28

BIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	750	(755)	710
DWELL	N/A		N/A
TIMING	+02	(+02)	+05
MECH ADVANCE	19	(20)	20
TOTAL ADVANCE	42	(42)	41
PROPANE IDLE CK	490		600

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STRETCHY	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
Spark Plg Frng Volt.
Air Filter

Fast Idle Speed
Ign. Timing @ Idle
Spk Plg Frng Volt.
Cyl. Power Dist.
Auto Choke - Movement
Air Filter

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.82	086.63	2433.6	09.19	07.97	
	CS (grams)	005.26	015.39	2662.0	06.76	05.82	
DATE: 4-21-79	HT (grams)	006.61	026.07	2167.7	10.71	09.17	
ODOM: 42776	COMP (GPM)	001.71	009.00	0659.2	02.24	01.93	13.1
	HFET (GPM)	001.08	002.79	0447.2	02.77		19.49
RETEST	FTP CT (grams)	010.91	145.12	2694.4	12.66	11.07	
	CS (grams)	006.77	015.00	2892.6	06.80	05.94	
DATE: 5-19-79	HT (grams)	007.72	024.40	2300.9	10.98	09.47	
ODOM: 43629	COMP (GPM)	002.11	012.17	0715.0	02.47	02.15	12.0
	HFET (GPM)	001.06	002.92	0468.5	02.99		18.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0909.4	00.1	0788.3	0150	00.2
LOW	1398.8	00.1	0912.4	0200	00.1
IDLE	0857.4	00.1	0119.8	0160	00.1
HI	0700.1	00.1	0808.6	0040	00.1
LOW	1263.1	00.1	0876.5	0100	00.1
IDLE	1186.6	00.1	0175.3	0130	00.1

EPA NO. 51128

APPENDIX D

EPA NO.: 51129 MAKE/MODEL: MERCURY/MONARCH ENG: 302-2V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	40	25	40	P	25	30	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	925	-	950	P	925	-	925	P
DEQ QUEUE TIME	2 Minutes				15 Minutes			
HTS HC (ppm)	60	20	60	-	60	40	80	-
HTS CO (%)	0.2	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	320	80	-	70	310	75	-
HTS RPM	850	-	910	-	870	-	870	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	63	50	30.15		65	45	30.35	
HTS	77	35	30.06		83	34	30.29	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(655)	690
DWELL	N/A		N/A
TIMING	+10	(+06)	+10
MECH ADVANCE	23	(17)	23
TOTAL ADVANCE	41	(36)	37
PROPANE IDLE CK	170		150

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.82	020.22	2273.5	13.31	11.64	
DATE: 4-26-79	CS (grams)	003.11	001.49	2466.1	15.47	13.76	
ODOM: 24683	HT (grams)	003.63	008.42	2035.9	14.67	12.96	
	COMP (GPM)	001.02	002.00	0613.9	03.94	03.49	14.3
	HFET (GPM)	000.60	001.53	0469.6	04.66		18.71
RETEST	FTP CT (grams)	006.32	022.17	2229.3	12.47	12.40	
DATE: 5-21-79	CS (grams)	003.07	002.06	2549.2	14.15	14.07	
ODOM: 24883	HT (grams)	005.19	012.12	2067.3	13.93	14.19	
	COMP (GPM)	001.17	002.47	0624.8	03.66	03.67	14.0
	HFET (GPM)	000.48	001.76	0442.7	03.67		19.84

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0487.2	00.0	1452.0	0060	00.1
LOW	0413.8	00.0	0742.9	0060	00.1
IDLE	0300.6	00.0	0160.4	0060	00.1
HI	0522.6	00.0	0828.0	0050	00.0
LOW	0397.1	00.0	0743.1	0050	00.0
IDLE	0308.4	00.0	0143.7	0040	00.0

EPA NO. 51129

APPENDIX D

EPA NO.: 51130 MAKE/MODEL: TOYOTA/COROLLA ENG: 97-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	50	35	55	P	15	15	45	P
DEQ CO (%)	0.6	0.4	0.7	P	0.7	0.3	0.8	P
DEQ RPM	850	-	825	P	900	-	900	P
DEQ QUEUE TIME	0 Minutes				0 Minutes			
HTS HC (ppm)	110	30	80	-	70	20	60	-
HTS CO (%)	1.7	0.5	1.4	-	1.5	0.5	1.2	-
HTS NOX (ppm)	80	110	70	-	60	80	60	-
HTS RPM	810	-	900	-	790	-	870	-

	°F	RH	BARO	°F	RH	BARO
DEQ	72	40	29.85	67	56	30.25
HTS	82	33	29.84	82	33	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	740	(855)	690
DWELL	61	(57)	61
TIMING	+13	(+12)	+11
MECH ADVANCE	24	(27)	22
TOTAL ADVANCE	23	(41)	26
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:

Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500
Spk Plg Frng Volt.
Dwell

Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500
Rotor Gap Volt.
Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.49	072.24	1404.7	18.75	17.39	
DATE: 4-27-79	CS (grams)	002.51	049.51	1635.4	05.85	05.47	
ODOM: 43132	HT (grams)	003.52	038.48	1208.3	13.00	12.15	
	COMP (GPM)	000.97	013.67	0390.4	02.84	02.65	21.4
	HFET (GPM)	000.46	006.71	0250.7	04.05		33.76
RETEST	FTP CT (grams)	007.13	056.53	1294.3	19.14	17.15	
DATE: 5-18-79	CS (grams)	002.62	048.44	1625.0	06.23	05.58	
ODOM: 43607	HT (grams)	004.26	036.56	1189.3	14.64	13.03	
	COMP (GPM)	001.08	012.48	0381.3	03.04	02.72	21.9
	HFET (GPM)	000.69	004.77	0270.3	06.08		31.67

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1162.1	00.4	1769.5	0090	00.4
LOW	0666.4	00.9	0519.8	0050	00.9
IDLE	0127.9	00.3	0080.6	0020	00.2
HI	1169.4	00.4	1931.9	0070	00.5
LOW	0621.8	00.8	0513.7	0040	00.8
IDLE	0661.6	01.1	0060.1	0040	01.0

EPA NO 51130

APPENDIX D

EPA NO.: 51131 MAKE/MODEL: VOLKSWAGON/BEETLE ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	260	170	315	P	240	130	220	P
DEQ CO (%)	1.5	2.7	1.6	P	1.3	1.2	1.0	P
DEQ RPM	850	-	900	P	1000	-	1000	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	430	200	440	-	310	170	320	-
HTS CO (%)	2.0	1.4	2.0	-	1.3	1.6	1.3	-
HTS NOX (ppm)	110	240	110	-	160	260	180	-
HTS RPM	740	-	760	-	970	-	950	-

	°F	RH	BARO	°F	RH	BARO
DEQ	72	39	29.88	67	51	30.15
HTS	83	31	29.84	83	42	30.04

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	840	(875)	840
DWELL	50	(47)	44
TIMING	-05	(-05)	00
MECH ADVANCE	23	(10)	20
TOTAL ADVANCE	29	(17)	30
PROPANE IDLE CK	40		60

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS:
Mech. Adv. @ 2500
Total Adv. @ 2500
Spk Plg Frng Volt.

Mech. Adv. @ 2500
Total Adv. @ 2500
Spk Plg Frng Volt.
Ign. Timing @ Idle
Coil Primary Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Spark Plugs
Replaced Points & Condenser
Replaced Distributor Cap & Rotor
Replaced Engine Oil & EGR System
Adjusted Carburetor & Choke
Adjusted Idle Speed, Timing & Dwell

PERFORMED BY: Auto Dealer
COST: $ 59.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.04	162.17	1140.2	14.17	13.08	
DATE: 4-30-79	CS (grams)	009.34	088.07	1426.7	09.87	09.29	
ODOM: 21529	HT (grams)	007.91	080.15	1058.2	12.30	11.58	
	COMP (GPM)	002.54	027.13	0336.0	03.06	02.87	22.9
	HFET (GPM)	001.29	016.20	0216.9	03.52		35.99
RETEST	FTP CT (grams)	010.91	144.72	0998.5	10.69	09.18	
DATE: 5-29-79	CS (grams)	008.52	069.93	1284.0	07.59	06.52	
ODOM: *	HT (grams)	010.75	073.86	0922.3	09.70	08.33	
	COMP (GPM)	002.58	023.23	0298.5	02.36	02.03	25.8
	HFET (GPM)	001.13	009.04	0198.7	03.25		40.96

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2683.6	01.4	2397.4	0180	01.2
LOW	2949.7	01.1	1198.9	0230	01.2
IDLE	2549.0	01.2	0179.5	0200	01.2
HI	2610.2	01.2	2144.4	0160	01.3
LOW	3170.1	00.8	0953.0	0230	00.9
IDLE	3090.1	00.7	0119.8	0230	00.8

* No Change to Odometer

APPENDIX D

EPA NO.: 51132 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	95	50	125	P	63	60	120	P
DEQ CO (%)	2.0	0.2	2.0	P	1.4	0.5	1.1	P
DEQ RPM	900	-	900	P	800	-	850	P
DEQ QUEUE TIME	6 Minutes				5 Minutes			
HTS HC (ppm)	100	50	100	-	170	40	140	-
HTS CO (%)	1.9	0.3	1.9	-	2.4	2.2	2.3	-
HTS NOX (ppm)	70	150	60	-	70	130	70	-
HTS RPM	780	-	810	-	720	-	720	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	65	30.25	80	34	30.00
HTS	75	47	30.19	93	37	29.90

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	670	(700)	640
DWELL	52	(52)	50
TIMING	+08	(+10)	+09
MECH ADVANCE	16	(23)	21
TOTAL ADVANCE	47	(41)	38
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Dist. Point Volt.
- EGR

Ign. Timing @ Idle
Dist. Point Volt.
EGR
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.12	125.50	1242.5	14.12	12.76	
	CS (grams)	005.17	036.07	1282.2	07.59	06.74	
DATE: 5-1-79	HT (grams)	005.43	027.43	0993.2	14.31	12.71	
ODOM: 55820	COMP (GPM)	001.57	014.09	0317.7	02.91	02.60	25.7
	HFET (GPM)	000.72	002.47	0225.0	05.08		38.37
RETEST	FTP CT (grams)	007.60	121.67	1185.1	12.01	11.52	
	CS (grams)	004.78	031.45	1228.2	06.76	06.48	
DATE: 6-5-79	HT (grams)	005.16	025.53	0985.2	12.21	11.71	
ODOM: 56235	COMP (GPM)	001.47	013.11	0306.6	02.52	02.41	26.7
	HFET (GPM)	000.66	002.11	0214.6	04.68		40.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1146.8	00.1	2436.8	0080	00.1
LOW	0889.8	00.1	0689.7	0080	00.1
IDLE	0966.3	01.2	0087.9	0080	01.2
HI	0985.8	00.1	2333.0	0060	00.1
LOW	1707.8	00.1	1342.2	0120	00.0
IDLE	1166.3	01.3	0081.6	0080	01.0

EPA NO.51132

APPENDIX D

EPA NO.: 51133 MAKE/MODEL: AUDI/FOX ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	75	75	80	P	80	60	95	P
DEQ CO (%)	0.7	0.2	0.8	P	0.9	0.2	1.1	P
DEQ RPM	1050	-	1150	P	1150	-	1150	P
DEQ QUEUE TIME	40 Minutes				10 Minutes			
HTS HC (ppm)	100	50	60	-	80	20	70	-
HTS CO (%)	0.8	0.2	0.9	-	0.6	0.1	0.8	-
HTS NOX (ppm)	110	140	120	-	120	130	120	-
HTS RPM	1050	-	1080	-	1090	-	1080	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	58	56	30.10		64	43	30.35	
HTS	67	45	30.04		71	41	30.27	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	1010	(875)	1040
DWELL	51	(50)	52
TIMING	-05	(-03)	-03
MECH ADVANCE	25	(24)	17
TOTAL ADVANCE	30	(30)	18
PROPANE IDLE CK	410		510

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	NONE	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	FI	FI

PROBLEM AREAS:

Idle Speed
Ign. Timing @ Idle
Spk Plg Frng Volt.
Rotor Gap Volt.

Idle Speed
Spk Plg Frng Volt.
Rotor Gap Volt.
Mech. Adv. @ 2500
Cyl. Power Dist.
Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Hardstarting, Rough Idle
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.64	036.36	1270.5	08.71	07.52	
DATE:5-2-79	CS (grams)	004.19	022.34	1639.9	05.87	05.07	
ODOM:43474	HT (grams)	004.75	014.67	1147.5	09.42	08.21	
	COMP (GPM)	001.30	006.18	0378.7	02.00	01.73	22.6
	HFET (GPM)	000.57	002.18	0238.4	02.23		36.39
RETEST	FTP CT (grams)	005.19	033.01	1200.7	07.65	06.82	
DATE:5-31-79	CS (grams)	003.70	017.83	1536.2	04.31	03.84	
ODOM:43997	HT (grams)	003.51	011.27	1143.1	08.01	07.41	
	COMP (GPM)	001.06	005.13	0360.5	01.62	01.47	23.8
	HFET (GPM)	000.45	001.64	0222.0	01.94		39.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1134.6	00.2	1594.8	0080	00.2
LOW	1299.8	00.1	0483.4	0100	00.1
IDLE	1226.4	00.5	0148.6	0100	00.6
HI	0845.1	00.1	1139.3	0040	00.1
LOW	1062.3	00.1	0415.9	0060	00.1
IDLE	0891.0	00.3	0091.2	0060	00.3

EPA NO. 51133

APPENDIX D

EPA NO.: 51134 MAKE/MODEL: FORD/GRANADA ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	20	25	30	P	35	20	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.6	0.0	0.0	P
DEQ RPM	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	50	40	40	-	20	20	20	-
HTS CO (%)	0.1	0.1	0.1	-	0.1	0.0	0.0	-
HTS NOX (ppm)	80	190	90	-	80	180	80	-
HTS RPM	930	-	920	-	890	-	900	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	57	30.11	77	33	29.95
HTS	66	48	30.15	93	35	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	720	(655)	640
DWELL	N/A		N/A
TIMING	+04	(+12)	+02
MECH ADVANCE	15	(22)	15
TOTAL ADVANCE	34	(42)	33
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Air Filters
- Mech. Adv. @ 2500
- Total Adv. 2 2500

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500
Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.30	100.58	2557.8	08.78	07.59	
DATE: 5-2-79	CS (grams)	003.19	008.25	2965.8	07.19	06.25	
ODOM: 33007	HT (grams)	003.48	011.69	2280.9	10.07	08.75	
	COMP (GPM)	001.11	007.75	0715.4	02.23	01.93	12.1
	HFET (GPM)	000.52	001.82	0486.4	02.67		18.07
RETEST	FTP CT (grams)	007.03	090.25	2497.9	09.12	07.87	
DATE: 5-29-79	CS (grams)	003.44	012.51	2934.9	07.18	06.09	
ODOM: 33508	HT (grams)	003.64	013.08	2270.2	10.76	09.19	
	COMP (GPM)	001.14	007.84	0707.1	02.30	01.96	12.3
	HFET (GPM)	000.52	002.11	0456.6	02.83		19.21

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0404.6	00.1	0532.8	0020	00.1
LOW	0380.1	00.0	0334.7	0030	00.0
IDLE	0536.2	00.0	0072.1	0040	00.1
HI	0478.0	00.1	0415.9	0020	00.1
LOW	0413.8	00.0	0363.3	0020	00.0
IDLE	0156.8	00.0	0064.9	0010	00.0

EPA NO. 51134

EPA NO.: 51135 MAKE/MODEL: CADILLAC/DEVILLE ENG: 500-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	100	60	P	75	170	105	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.1	0.0	P
DEQ RPM	950	-	950	P	850	-	875	P
DEQ QUEUE TIME	14 Minutes				20 Minutes			
HTS HC (ppm)	80	30	50	-	140	20	80	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	130	200	140	-	120	290	130	-
HTS RPM	930	-	910	-	790	-	970	-

	°F	RH	BARO	°F	RH	BARO
DEQ	59	66	30.05	72	38	30.15
HTS	68	58	29.96	77	46	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	650	(600)	620
DWELL	N/A		N/A
TIMING	-01	(+06)	+02
MECH ADVANCE	06	(17)	13
TOTAL ADVANCE	36	(45)	39
PROPANE IDLE CK	120		120

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: DAMAGED DAMAGED

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spk Plg Frng Volt.
- Cyl. Power Dist.

Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE — MAINT PRIOR TO RETEST

- Replaced Spark Plugs
- Replaced Air Filter & Thermostat
- Adjusted Carburetor & Choke
- Adjusted Idle Speed
- Adjusted Timing

PERFORMED BY: Auto Dealer
COST: $104.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.54	162.43	2971.7	11.62	10.97	
	CS (grams)	002.28	017.67	3019.3	11.58	10.93	
DATE:5-05-79	HT (grams)	003.09	029.98	2561.3	12.48	11.63	
ODOM:87829	COMP (GPM)	001.14	013.95	0767.6	03.16	02.97	11.2
	HFET (GPM)	000.13	000.60	0571.5	03.36		15.48
RETEST	FTP CT (grams)	010.47	173.89	3001.3	10.56	10.85	
	CS (grams)	003.02	022.17	3173.1	09.61	09.88	
DATE:6-02-79	HT (grams)	003.92	035.67	2666.7	11.30	11.62	
ODOM:88758	COMP (GPM)	001.30	015.64	0797.8	02.75	02.82	10.7
	HFET (GPM)	000.59	013.51	0553.6	02.38		15.38

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0251.7	00.0	0828.9	0010	00.0
LOW	0260.8	00.1	0494.6	0010	00.1
IDLE	0141.5	00.0	0444.5	0000	00.0
HI	0648.1	00.1	0835.3	0050	00.1
LOW	0430.8	00.0	0558.6	0050	00.1
IDLE	0274.7	00.0	0333.0	0040	00.0

EPA NO.51135

APPENDIX D

EPA NO.: 52101 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	145	155	215	P	45	55	35	P	165	55	120	F
DEQ CO (%)	4.0	2.0	3.6	F	0.0	0.0	0.0	P	1.7	0.5	1.7	F
DEQ RPM	850	-	850	P	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				12 Minutes				5 Minutes			
HTS HC (ppm)	130	50	120	-	50	60	50	-	210	70	220	-
HTS CO (%)	1.6	0.2	1.8	-	0.0	0.2	0.0	-	1.9	0.3	0.9	-
HTS NOX (ppm)	120	460	120	-	80	320	70	-	100	420	90	-
HTS RPM	890	-	900	-	800	-	800	-	730	-	730	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	62	25	30.10		62	33	29.95		56	69	30.20	
HTS	75	27	30.05		78	27	29.86		69	51	30.10	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	590	(555)	550	520
DWELL	N/A		N/A	N/A
TIMING	+07	(+10)	+06	+08
MECH ADVANCE	20	(25)	23	23
TOTAL ADVANCE	40	(49)	44	45
PROPANE IDLE CK	60		140	50

DRIVEABILITY			
ENG STARTING	GOOD	HARD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	STUMBLES, BACKFIRES STRETCHY, SURGES	OK
IDLE LIMITER CAPS:	OK	OK	OK
PROBLEM AREAS:	Fast Idle Speed Total Adv. @ 2500 Ign. Timing @ Idle	Ign. Timing @ Idle	Spk Plg Frng Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Spark Plugs Replaced Air Filter Replaced Engine Oil Replaced Valve Cover Gasket Adjusted Carburetor Adjusted Idle Speed & Timing
PERFORMED BY:	Independent Repair Garage	Independent Repair Garage
COST:	$10.00	$57.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

EPA NO.: 52101 MAKE/MODEL : CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	35	60	P	85	90	95	P
DEQ CO (%)	0.0	0.0	0.0	P	1.3	1.2	1.2	F
DEQ RPM	850	-	850	P	950	-	950	P
DEQ QUEUE TIME	2 Minutes				5 Minutes			
HTS HC (ppm)	60	200	50	-	110	120	120	-
HTS CO (%)	0.0	2.3	0.0	-	0.8	2.2	0.9	-
HTS NOX (ppm)	80	460	80	-	110	400	110	-
HTS RPM	920	-	900	-	960	-	980	-

	°F	RH	BARO	°F	RH	BARO
DEQ	72	40	29.85	67	51	30.15
HTS	90	31	29.84	88	46	29.96

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	530	(555)	610
DWELL	N/A		N/A
TIMING	+10	(+10)	+08
MECH ADVANCE	25	(25)	23
TOTAL ADVANCE	49	(49)	46
PROPANE IDLE CK	110		70

DRIVEABILITY		
ENG STARTING	GOOD	HARD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLES
IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	None	None

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Spark Plugs & Choke	None
	Adjusted Carburetor	
	Adjusted Idle Speed	
	Adjusted Timing	
	Repaired EGR System	
PERFORMED BY:	HTS	
COST:	None	
MANHOURS:	5 Hours	
OWNER'S DRIVEABILITY EVAL:	N/A	No Major Problems
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX D

TEST		FTP & HFET RESULTS HC	CO	CO_2	NOX	NOXC	MPG	FED THREE-MODE TEST RESULTS TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	017.29	155.71	1796.5	13.43	11.50		HI	0725.8	00.0	2321.0	0070	00.0
DATE: 3-13-79	CS (grams)	008.71	156.10	1799.5	08.77	07.46		LOW	2772.3	01.1	0912.4	0200	01.1
	HT (grams)	007.33	089.54	1523.0	12.40	10.62		IDLE	4190.4	04.7	0081.6	0320	04.4
ODOM: 30207	COMP (GPM)	002.71	036.55	0458.7	02.88	02.46	16.9						
	HFET (GPM)	000.54	005.07	0355.0	04.65		24.32						
MAINT RETEST	FTP CT (grams)	011.41	118.04	1941.1	14.52	12.45		HI	0208.8	00.0	2256.6	0030	00.0
DATE: 3-21-79	CS (grams)	002.01	009.73	2141.2	09.89	08.49		LOW	0172.1	00.0	1201.3	0040	00.0
	HT (grams)	002.59	019.16	1723.6	13.36	11.45		IDLE	1658.8	00.5	0127.0	0150	00.6
ODOM: 30420	COMP (GPM)	001.12	009.52	0527.8	03.17	02.72	16.2						
	HFET (GPM)	000.19	001.33	0376.5	04.87		23.39						
RETEST	FTP CT (grams)	012.31	128.13	1937.0	16.05	14.19		HI	0471.9	00.0	2316.3	0070	00.0
DATE: 4-25-79	CS (grams)	004.99	063.15	1989.6	12.08	10.68		LOW	0346.5	00.0	1167.9	0050	00.0
	HT (grams)	004.39	033.52	1706.9	16.87	14.81		IDLE	3270.2	02.9	0079.2	0270	02.7
ODOM: 31225	COMP (GPM)	001.70	018.31	0506.1	03.81	03.36	16.4						
	HFET (GPM)	000.30	002.56	0383.8	05.30		22.81						
HTS MAINT RETEST	FTP CT (grams)	013.11	112.14	1871.1	13.58	12.15		HI	0253.3	00.0	2145.6	0040	00.0
DATE: 4-26-79	CS (grams)	001.13	000.39	2109.2	11.70	10.66		LOW	0225.8	00.0	1667.6	0040	00.0
	HT (grams)	002.18	010.28	1711.9	13.75	12.62		IDLE	0158.5	00.0	0211.7	0030	00.0
ODOM: 31257	COMP (GPM)	001.07	007.26	0518.6	03.38	03.08	16.6						
	HFET (GPM)	000.15	000.47	0364.1	04.80		24.28						
RETEST	FTP CT (grams)	012.83	132.08	1853.3	12.92	11.33		HI	0369.6	00.0	2339.7	0050	00.0
DATE: 5-25-79	CS (grams)	001.63	006.22	2172.5	10.51	09.21		LOW	0247.2	00.0	1097.3	0050	00.0
	HT (grams)	002.15	012.52	1703.2	14.28	12.52		IDLE	1761.9	00.4	0153.4	0190	00.4
ODOM: 31948	COMP (GPM)	001.12	009.35	0525.4	03.23	02.83	16.3						
	HFET (GPM)	000.19	001.45	0354.5	04.55		24.81						

EPA NO. 52101

APPENDIX D

EPA NO.: 52102 MAKE/MODEL: FORD/PINTO ENG: 140- TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	35	40	45	P	70	55	70	P	115	65	120	P
DEQ CO (%)	1.5	0.5	1.2	F	1.0	0.5	1.0	P	2.1	0.8	2.1	F
DEQ RPM	950	-	950	P	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				40 Minutes				25 Minutes			
HTS HC (ppm)	90	50	80	-	100	40	100	-	140	60	120	-
HTS CO (%)	1.1	0.4	0.9	-	1.7	0.4	1.7	-	1.7	0.7	1.8	-
HTS NOX (ppm)	60	170	70	-	50	180	60	-	70	130	70	-
HTS RPM	890	-	950	-	850	-	870	-	870	-	880	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	29	30.05		55	55	29.75		66	45	29.96	
HTS	75	27	30.04		73	35	30.01		85	32	29.90	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	760	(755)	790		660
DWELL	N/A		N/A		N/A
TIMING	+20	(+06)	+09		+09
MECH ADVANCE	31	(09)	25		25
TOTAL ADVANCE	43	(33)	33		36
PROPANE IDLE CK	0		0		0
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLES		OK		OK
IDLE LIMITER CAPS:	MISSING		OK		OK
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spk Plg Frng Volt.		Ign. Timing @ Idle Mech. Adv. @ 2500		Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Air Filter Replaced Gas Filler Cap Adjusted Ign. Timing	None
PERFORMED BY:	Owner	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.01	112.21	1395.3	12.39	10.59	
DATE: 3-12-79	CS (grams)	006.98	131.82	1476.6	06.14	05.25	
	HT (grams)	004.52	063.94	1280.0	09.44	08.13	
ODOM: 36363	COMP (GPM)	001.62	028.87	0374.1	02.25	01.92	20.9
	HFET (GPM)	000.37	003.58	0308.2	02.65		28.15
MAINT RETEST	FTP CT (grams)	006.61	143.61	1482.0	14.13	12.11	
DATE: 3-30-79	CS (grams)	008.62	141.28	1503.3	06.45	05.47	
	HT (grams)	005.06	064.32	1321.3	09.91	08.49	
ODOM: 36993	COMP (GPM)	001.91	031.96	0385.8	02.42	02.07	20.1
	HFET (GPM)	000.33	003.51	0325.1	02.52		26.74
RETEST	FTP CT (grams)	006.58	129.53	1568.3	13.43	12.37	
DATE: 4-27-79	CS (grams)	008.90	145.01	1562.8	06.54	06.07	
	HT (grams)	006.31	071.18	1398.3	09.86	09.26	
ODOM: 37938	COMP (GPM)	002.04	032.17	0404.6	02.39	02.22	19.2
	HFET (GPM)	000.30	003.69	0329.9	02.55		26.34

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0547.1	00.1	0755.2	0040	00.1
LOW	1654.8	01.0	0641.1	0100	01.0
IDLE	2471.8	03.0	0078.2	0150	03.0
HI	0591.2	00.1	0635.5	0000	00.1
LOW	1720.0	00.7	0649.8	0070	00.8
IDLE	2613.2	03.0	0074.5	0120	02.0
HI	0369.6	00.1	0718.8	0030	00.2
LOW	1835.3	01.1	0595.0	0100	01.4
IDLE	2918.6	03.4	0075.8	0180	03.4

EPA NO. 52102

APPENDIX D

EPA NO.: 52103 MAKE/MODEL: DODGE/CORONET ENG: 360-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	95	85	110	P	90	45	40	P	75	35	80	P
DEQ CO (%)	4.2	3.2	4.0	F	1.0	0.0	0.0	P	1.7	0.7	2.5	F
DEQ RPM	900	-	900	P	700	-	700	P	860	-	800	P
DEQ QUEUE TIME	5 Minutes				5 Minutes				20 Minutes			
HTS HC (ppm)	200	90	150	-	60	20	20	-	50	10	20	-
HTS CO (%)	6.6	0.9	5.0	-	0.0	0.0	0.0	-	0.4	0.0	0.0	-
HTS NOX (ppm)	120	500	120	-	60	280	90	-	80	260	60	-
HTS RPM	850	-	900	-	710	-	730	-	760	-	750	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	22	30.05		62	30	29.95		58	61	30.15	
HTS	73	32	30.03		78	30	29.85		73	42	30.10	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	850	(755)	690	680	
DWELL	N/A		N/A	N/A	
TIMING	+05	(+06)	+06	+05	
MECH ADVANCE	21	(23)	21	21	
TOTAL ADVANCE	36	(45)	43	43	
PROPANE IDLE CK	0		130	120	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	STUMBLES		STUMBLES	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Idle Speed Total Adv. @ 2500 Cyl. Power Dist. EGR Plugged		EGR Plugged Vacuum Hoses Plugged	EGR Plugged Vacuum Hoses Plugged	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter	Replaced Engine Oil
	Replaced Valve Seals & Coil	Replaced Oil Filter
	Adjusted Spark Plugs	
	Adjusted Carburetor & Choke	
	Adjusted Idle Speed	
	Adjusted Timing	
PERFORMED BY:	Auto Dealer	Owner
COST:	$166.00	$10.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.16	200.85	2666.2	12.62	10.93	
DATE: 3-12-79	CS (grams)	007.80	226.96	2725.0	07.51	06.44	
ODOM: 32207	HT (grams)	005.41	108.67	2167.9	18.95	16.14	
	COMP (GPM)	002.15	050.04	0681.0	03.17	02.71	11.6
	HFET (GPM)	000.27	005.32	0493.9	07.28		17.63
MAINT RETEST	FTP CT (grams)	008.11	158.74	3040.0	13.96	11.78	
DATE: 3-21-79	CS (grams)	001.85	058.58	2985.3	08.09	06.78	
ODOM: 32299	HT (grams)	001.69	027.47	2525.8	21.87	18.28	
	COMP (GPM)	000.84	019.00	0764.3	03.54	02.97	11.1
	HFET (GPM)	000.16	003.07	0642.1	09.25		13.70
RETEST	FTP CT (grams)	004.66	125.58	2642.8	10.75	09.27	
DATE: 4-25-79	CS (grams)	002.08	047.27	2829.8	07.38	06.36	
ODOM: 32845	HT (grams)	002.14	036.36	2211.2	18.73	16.42	
	COMP (GPM)	000.71	016.27	0696.9	03.02	02.63	12.2
	HFET (GPM)	000.16	001.81	0478.4	07.11		18.41

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0231.9	00.0	2436.8	0020	00.0
LOW	0228.8	00.0	0726.1	0020	00.1
IDLE	2582.0	03.5	0095.2	0160	03.6
HI	0156.8	00.0	2397.4	0030	00.0
LOW	0071.2	00.0	0769.2	0020	00.0
IDLE	0098.7	00.0	0076.8	0020	00.0
HI	0187.4	00.0	1915.2	0070	00.0
LOW	0098.7	00.0	0530.5	0060	00.0
IDLE	0823.7	00.7	0074.5	0090	00.8

EPA NO. 52103

APPENDIX D

EPA NO.: 52104 MAKE/MODEL: CHEV/VEGA ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	435	155	515	F	30	60	60	P	30	40	40	P
DEQ CO (%)	10.0	1.4	10.0	F	0.0	0.8	0.0	P	0.0	0.1	0.1	P
DEQ RPM	850	-	850	P	1050	-	1050	P	1100	-	1150	P
DEQ QUEUE TIME	10 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	620	160	390	-	60	40	90	-	70	30	70	-
HTS CO (%)	9.9	1.9	9.4	-	0.0	0.2	0.0	-	0.0	0.3	0.0	-
HTS NOX (ppm)	130	250	130	-	110	240	100	-	100	180	100	-
HTS RPM	1020	-	1090	-	1000	-	1030	-	1100	-	1120	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	30	30.20		50	78	29.90		54	47	30.30	
HTS	73	33	30.12		68	50	29.89		69	35	30.22	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	960	(700)	710	1020
DWELL	N/A		N/A	N/A
TIMING	+11	(+10)	+09	+11
MECH ADVANCE	18	(18)	18	18
TOTAL ADVANCE	54	(43)	40	51
PROPANE IDLE CK	0		190	150

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	OK	OK	OK
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING MISSING MISSING

PROBLEM AREAS: Idle Speed
Total Adv. @ 2500

Fast Idle Speed

Idle Speed
Fast Idle Speed
Cyl. Power Dist.
Total Adv. @ 2500

MAINTENANCE

MAINT TO PASS DEQ
Adjusted Carburetor
Adjusted Idle Speed

MAINT PRIOR TO RETEST
None

PERFORMED BY: Independent Repair Garage
COST: None

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

Hardstarting, Dieseling
Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	023.84	222.57	1142.4	09.88	08.12	
DATE: 3-13-79	CS (grams)	023.76	336.60	1359.8	07.43	06.11	
ODOM: 37955	HT (grams)	016.75	196.64	1108.3	10.24	08.42	
	COMP (GPM)	005.81	072.59	0331.0	02.34	01.92	19.1
	HFET (GPM)	001.27	010.78	0249.7	03.34		32.76
MAINT RETEST	FTP CT (grams)	028.10	192.71	1327.8	08.30	07.04	
DATE: 3-15-79	CS (grams)	006.77	056.34	1688.0	07.45	06.32	
ODOM: 38050	HT (grams)	006.01	078.85	1246.9	08.62	07.35	
	COMP (GPM)	002.97	024.55	0396.0	02.12	01.80	20.0
	HFET (GPM)	000.60	002.27	0274.6	03.18		31.67
RETEST	FTP CT (grams)	010.77	115.24	1312.4	09.58	08.06	
DATE: 4-20-79	CS (grams)	005.15	037.43	1620.0	08.59	07.16	
ODOM: 39106	HT (grams)	004.96	053.56	1243.6	09.42	07.90	
	COMP (GPM)	001.68	015.67	0385.8	02.41	02.02	21.3
	HFET (GPM)	000.57	002.12	0264.3	03.45		32.91

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2000.6	00.1	1869.0	0130	00.1
LOW	3747.0	01.4	1014.8	0220	01.2
IDLE	9989.2	10.9	0036.9	0580	10.0
HI	1498.7	00.1	1522.0	0080	00.1
LOW	1471.2	00.1	1196.8	0080	00.1
IDLE	0528.7	00.0	0131.6	0040	00.0
HI	1227.5	00.1	1697.9	0060	00.0
LOW	1071.5	00.1	1031.8	0060	00.0
IDLE	0361.8	00.0	0100.7	0040	00.0

APPENDIX D

EPA NO.: 52105 MAKE/MODEL: BUICK/SKYLARK ENG: 231-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	20	20	25	P	15	25	20	P	15	15	15	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.5	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1150	-	1200	F	650	-	650	P	1050	-	1075	P
DEQ QUEUE TIME	15 Minutes				10 Minutes				10 Minutes			
HTS HC (ppm)	60	40	60	-	70	20	30	-	60	30	40	-
HTS CO (%)	0.1	0.0	0.0	-	0.0	0.0	0.0	-	0.1	0.1	0.0	-
HTS NOX (ppm)	140	300	130	-	100	270	100	-	120	260	120	-
HTS RPM	980	-	1030	-	900	-	930	-	980	-	1000	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	57	30.05		53	62	30.05		59	48	30.10	
HTS	65	61	30.02		62	54	29.97		72	34	30.01	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	670	(700)	640		690
DWELL	N/A		N/A		N/A
TIMING	+07	(+12)	+06		+06
MECH ADVANCE	11	(24)	12		11
TOTAL ADVANCE	33	(42)	29		32
PROPANE IDLE CK	270		300		230
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLE		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. EGR Vacuum Hoses		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. EGR Vacuum Hoses		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Cyl. Power Dist. EGR Vacuum Hoses

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Idle Speed	None
PERFORMED BY:	Owner	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.31	208.45	1826.8	19.68	17.21	
	CS (grams)	001.37	008.72	2128.4	20.15	17.45	
DATE: 3-16-79	HT (grams)	004.44	068.27	1669.5	18.68	16.18	
ODOM: 49244	COMP (GPM)	001.46	018.30	0515.4	05.23	04.54	16.2
	HFET (GPM)	000.76	014.80	0349.6	05.03		23.63
MAINT RETEST	FTP CT (grams)	012.25	212.49	1838.5	19.66	17.09	
	CS (grams)	002.62	043.46	2130.7	17.18	14.94	
DATE: 3-20-79	HT (grams)	004.01	063.24	1679.1	18.82	16.36	
ODOM: 49323	COMP (GPM)	001.36	022.78	0517.1	04.85	04.21	15.9
	HFET (GPM)	000.48	010.92	0354.9	04.49		23.73
RETEST	FTP CT (grams)	023.76	242.31	1914.8	23.08	20.63	
	CS (grams)	001.47	014.94	2126.4	18.76	16.88	
DATE: 4-24-79	HT (grams)	009.47	072.41	1761.4	21.31	19.05	
ODOM: 50273	COMP (GPM)	002.28	021.39	0527.2	05.44	04.88	15.6
	HFET (GPM)	001.01	020.37	0333.7	04.95		24.04

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2196.4	01.3	2422.2	0120	01.3
LOW	0296.2	00.0	2436.8	0040	00.0
IDLE	0155.4	00.0	0565.9	0020	00.0
HI	1062.3	00.6	1688.4	0060	00.7
LOW	0199.7	00.0	2182.6	0040	00.0
IDLE	0117.1	00.0	0511.4	0020	00.0
HI	2043.4	01.4	2317.9	0140	01.5
LOW	0235.0	00.0	2160.1	0030	00.0
IDLE	0146.2	00.0	0592.6	0020	00.0

EPA NO. 52105

APPENDIX D

EPA NO.: 52106 MAKE/MODEL: PONTIAC/GRANVILLE ENG: 455-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	300	170	300	F	50	20	40	P	45	55	30	P
DEQ CO (%)	4.9	0.4	4.4	F	0.0	0.0	0.0	P	0.3	1.1	0.0	P
DEQ RPM	800	-	800	P	750	-	750	P	800	-	850	P
DEQ QUEUE TIME	5 Minutes				10 Minutes				10 Minutes			
HTS HC (ppm)	540	140	300	-	120	40	110	-	40	40	30	-
HTS CO (%)	5.9	0.4	2.9	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	30	100	20	-	80	260	80	-	90	150	80	-
HTS RPM	1080	-	1100	-	700	-	700	-	1050	-	1040	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	66	29.90		61	38	29.90		64	48	29.95	
HTS	73	46	29.84		77	32	29.81		80	35	29.92	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(655)	670	610	
DWELL	N/A		N/A	N/A	
TIMING	+15	(+16)	+15	+17	
MECH ADVANCE	23	(24)	25	25	
TOTAL ADVANCE	44	(49)	50	50	
PROPANE IDLE CK	20		110	90	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Air Filter Total Adv. @ 2500		Fast Idle Speed	Fast Idle Speed	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Choke Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Independent Repair Garage	
COST:	$30.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	015.38	168.80	2954.8	13.39	11.82	
DATE: 3-19-79	CS (grams)	011.84	234.30	2784.0	06.96	06.10	
ODOM: 46796	HT (grams)	009.07	118.53	2461.3	13.31	11.75	
	COMP (GPM)	003.15	049.93	0727.7	02.71	02.38	10.9
	HFET (GPM)	000.76	017.44	0524.1	03.64		16.01
MAINT RETEST	FTP CT (grams)	006.63	079.22	3043.9	12.41	10.34	
DATE: 3-22-79	CS (grams)	001.65	021.41	3077.7	06.99	05.87	
ODOM: 46831	HT (grams)	004.82	048.93	2541.7	12.80	10.74	
	COMP (GPM)	000.97	011.12	0778.0	02.62	02.19	11.1
	HFET (GPM)	000.17	001.41	0549.0	05.08		16.07
RETEST	FTP CT (grams)	005.04	058.45	2849.2	09.05	08.39	
DATE: 4-28-79	CS (grams)	001.10	003.70	3019.4	05.59	05.14	
ODOM: 47274	HT (grams)	004.81	045.53	2421.5	09.01	08.35	
	COMP (GPM)	000.80	007.31	0750.0	01.95	01.80	11.6
	HFET (GPM)	000.31	006.91	0509.3	03.32		17.02

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0374.0	00.0	1590.5	0050	00.0
LOW	0312.8	00.0	0451.7	0050	00.0
IDLE	3490.2	03.4	0110.3	0240	03.6
HI	0190.5	00.0	1566.6	0000	00.0
LOW	0120.1	00.0	0432.6	0000	00.0
IDLE	0141.5	00.0	0115.0	0000	00.0
HI	0204.4	00.0	1272.0	0030	00.0
LOW	0118.7	00.0	0350.0	0020	00.0
IDLE	0176.8	00.0	0117.0	0030	00.0

EPA NO. 52106

APPENDIX D

EPA NO.: 52107 MAKE/MODEL: FORD/MUSTANG ENG: 171-2 TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	90	90	90	P	35	45	55	P				
DEQ CO (%)	2.4	1.1	2.3	F	0.0	0.1	0.0	P				
DEQ RPM	950	-	950	P	850	-	850	P	No Retest - Vehicle Dropped from Program			
DEQ QUEUE TIME	5 Minutes				4 Minutes							
HTS HC (ppm)	220	30	120	-	90	30	100	-				
HTS CO (%)	1.0	0.1	0.9	-	0.6	0.0	0.0	-				
HTS NOX (ppm)	50	350	140	-	80	170	80	-				
HTS RPM	900	-	930	-	900	-	880	-				
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	63	29.90		62	51	30.14					
HTS	60	68	29.86		74	39	30.08					

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	750	(700)	710	
DWELL	N/A		N/A	
TIMING	+10	(+08)	+08	
MECH ADVANCE	22	(21)	22	
TOTAL ADVANCE	34	(27)	34	
PROPANE IDLE CK	110		120	
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	
TRANSMISSION	OK		OK	
CLUTCH	N/A		N/A	
BRAKES	OK		OK	
OVERALL PERF	OK		OK	

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR Hose Plugged
Total Adv @ 2500

Total Adv @ 2500
EGR Hose Plugged

MAINTENANCE

MAINT TO PASS DEQ

Carburetor Adjusted
Idle Speed Adjusted

MAINT PRIOR TO RETEST

PERFORMED BY: Service Station
COST: $10.00

OWNER'S DRIVEABILITY EVAL: Dieseling
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.17	188.77	1873.9	20.08	16.89	
DATE: 3-20-79	CS (grams)	005.55	127.42	2018.0	09.34	07.86	
	HT (grams)	005.73	093.00	1681.2	16.11	13.64	
ODOM: 54040	COMP (GPM)	001.64	034.88	0504.3	03.62	03.05	15.7
	HFET (GPM)	000.83	013.15	0386.1	04.92		21.66
MAINT RETEST	FTP CT (grams)	004.36	044.24	2003.2	25.42	23.08	
DATE: 5-03-79	CS (grams)	001.28	005.75	2067.6	11.89	10.79	
	HT (grams)	003.55	016.89	1724.1	21.74	19.89	
ODOM: 55851	COMP (GPM)	000.69	004.59	0521.6	04.69	04.27	16.7
	HFET (GPM)	000.24	001.91	0398.0	06.87		22.07
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
	HT (grams)						
ODOM:	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1284.5	00.6	2274.2	0080	00.6
LOW	0541.0	00.0	1847.1	0040	00.1
IDLE	1302.9	01.2	0177.7	0090	01.6
HI	0251.7	00.1	1812.5	0020	00.1
LOW	0218.0	00.0	1084.3	0020	00.0
IDLE	0202.7	00.0	0095.9	0010	00.0
HI					
LOW					
IDLE					

EPA NO. 52107

APPENDIX D

EPA NO.: 52108 MAKE/MODEL: AMC/PACER ENG: 232-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	225	110	250	F	60	25	65	P	75	55	80	P
DEQ CO (%)	3.9	1.0	3.7	F	0.5	0.1	0.4	P	1.0	0.2	0.6	P
DEQ RPM	800	-	800	P	800	-	800	P	750	-	750	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	340	80	330	-	90	20	70	-	160	50	130	-
HTS CO (%)	3.5	0.6	4.5	-	0.2	0.1	0.3	-	0.3	0.2	0.4	-
HTS NOX (ppm)	130	720	140	-	140	160	150	-	140	310	140	-
HTS RPM	730	-	710	-	750	-	760	-	760	-	770	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	61	35	30.30		58	55	30.00		59	67	30.00	
HTS	78	32	30.24		71	43	29.92		72	57	29.97	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	530	(550)	600	640
DWELL	N/A		N/A	N/A
TIMING	+07	(+05)	+06	+06
MECH ADVANCE	22	(20)	23	23
TOTAL ADVANCE	29	(36)	23	25
PROPANE IDLE CK	0		120	90

DRIVEABILITY			
ENG STARTING	FALSE	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	POOR	OK	OK
OVERALL PERF	STRETCHY	OK	OK

IDLE LIMITER CAPS:	MISSING	MISSING	MISSING
PROBLEM AREAS:	Total Adv. @ 2500	Total Adv. @ 2500 Spk Plg Frng Volt	Total Adv. @ 2500 Spark Plg Firing Volt.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.12	126.71	1948.6	15.93	14.16	
DATE: 3-27-79	CS (grams)	010.73	161.07	1651.7	14.09	12.52	
	HT (grams)	007.76	090.52	1566.9	12.77	11.35	
ODOM: 29955	COMP (GPM)	002.49	035.62	0451.0	03.76	03.34	17.2
	HFET (GPM)	001.16	011.06	0367.3	03.17		22.84
MAINT RETEST	FTP CT (grams)	004.72	052.29	2104.7	11.97	10.40	
DATE: 4-07-79	CS (grams)	004.45	038.54	1997.3	10.27	08.86	
	HT (grams)	003.85	029.68	1738.5	09.71	08.38	
ODOM: 30257	COMP (GPM)	001.16	010.39	0519.1	02.79	02.41	16.5
	HFET (GPM)	000.34	003.79	0428.3	02.19		20.37
RETEST	FTP CT (grams)	005.01	070.44	2135.7	12.17	10.95	
DATE: 5-07-79	CS (grams)	003.58	024.94	1949.7	09.80	08.95	
	HT (grams)	002.65	019.77	1740.4	10.06	09.16	
ODOM: 30853	COMP (GPM)	000.97	008.87	0514.7	02.77	02.52	16.7
	HFET (GPM)	000.25	003.04	0415.5	02.16		21.06

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1309.0	00.3	0900.8	0060	00.3
LOW	2676.8	00.8	1871.4	0100	00.6
IDLE	5037.4	05.0	0138.9	0340	05.0
HI	0297.6	00.1	0551.9	0040	00.1
LOW	1258.1	00.2	1050.9	0080	00.3
IDLE	1322.3	00.1	0320.4	0100	00.2
HI	0248.6	00.1	0516.1	0020	00.1
LOW	0475.0	00.1	0886.2	0030	00.1
IDLE	0744.2	00.1	0229.6	0060	00.1

EPA NO. 52108

APPENDIX D

EPA NO.: 52109 MAKE/MODEL: CADILLAC/DEVILLE ENG: 500-4V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	340	195	355	F	60	20	60	P	265	45	230	F
DEQ CO (%)	1.5	1.9	1.8	F	0.0	0.2	0.0	P	0.0	0.4	0.0	P
DEQ RPM	900	-	900	P	650	-	700	P	700	-	700	P
DEQ QUEUE TIME	15 Minutes				10 Minutes				25 Minutes			
HTS HC (ppm)	290	90	370	-	50	20	30	-	290	70	200	-
HTS CO (%)	0.1	1.6	0.3	-	0.0	0.7	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	190	100	-	70	85	100	-	20	140	30	-
HTS RPM	770	-	830	-	740	-	780	-	610	-	630	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	50	73	30.00		55	56	29.95		64	43	30.25	
HTS	69	43	29.94		77	42	29.92		73	39	30.18	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	630	(600)	530	490	
DWELL	N/A		N/A	N/A	
TIMING	+08	(+06)	+05	+07	
MECH ADVANCE	17	(17)	17	19	
TOTAL ADVANCE	44	(45)	28	29	
PROPANE IDLE CK	80		75	110	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Cyl. Power Dist.		Idle Speed Cyl. Power Dist. Total Adv. @ 2500	Idle Speed Total Adv. @ 2500	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Engine Oil Replaced Oil Filter Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Owner	
COST:	$26.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	016.32	222.81	2994.3	08.14	07.11	
DATE: 4-13-79	CS (grams)	006.95	127.71	3151.9	10.88	09.56	
	HT (grams)	008.08	140.64	2589.1	10.29	08.99	
ODOM: 53297	COMP (GPM)	002.48	040.49	0788.7	02.70	02.37	10.3
	HFET (GPM)	000.84	044.73	0533.2	02.42		14.63
MAINT RETEST	FTP CT (grams)	007.69	088.47	2823.4	04.78	04.10	
DATE: 5-09-79	CS (grams)	000.89	001.93	2831.5	05.75	04.97	
	HT (grams)	002.47	016.97	2415.6	05.11	04.38	
ODOM: 54258	COMP (GPM)	000.75	006.62	0723.0	01.43	01.23	12.1
	HFET (GPM)	000.09	000.57	0539.1	01.13		16.41
RETEST	FTP CT (grams)	008.86	154.21	2987.0	06.40	05.57	
DATE: 6-07-79	CS (grams)	001.01	003.50	3091.8	06.84	05.96	
	HT (grams)	002.23	020.49	2572.7	06.20	05.40	
ODOM: 54833	COMP (GPM)	000.81	010.87	0779.0	01.75	01.52	11.1
	HFET (GPM)	000.09	000.41	0563.3	01.33		15.72

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0430.8	00.5	0439.7	0020	00.6
LOW	0443.0	00.9	0277.2	0020	00.9
IDLE	2410.6	01.3	0330.6	0130	01.6
HI	0138.5	00.0	0210.5	0020	00.1
LOW	0092.6	00.0	0308.4	0010	00.0
IDLE	0065.1	00.0	0115.0	0000	00.0
HI	0173.8	00.0	0235.9	0010	00.1
LOW	0121.7	00.1	0240.8	0010	00.0
IDLE	0100.3	00.0	0148.6	0010	00.0

EPA NO. 52109

APPENDIX D

EPA NO.: 52110 MAKE/MODEL: CHEV/VEGA WGN ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	420	310	470	F	110	55	110	P	90	80	90	P
DEQ CO (%)	8.8	5.8	8.4	F	0.1	1.2	0.0	P	1.7	2.1	1.7	P
DEQ RPM	875	-	875	P	750	-	750	P	1050	-	1050	F
DEQ QUEUE TIME	5 Minutes				5 Minutes				10 Minutes			
HTS HC (ppm)	520	230	490	-	80	50	70	-	150	55	130	-
HTS CO (%)	8.9	3.5	8.5	-	0.0	0.6	0.0	-	2.0	0.5	1.8	-
HTS NOX (ppm)	120	250	120	-	80	180	80	-	100	200	100	-
HTS RPM	1010	-	1030	-	710	-	680	-	1000	-	1020	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	54	53	30.15		67	36	30.15		63	55	30.25	
HTS	65	48	30.10		84	34	30.07		70	50	30.17	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	930	(700)	640		900
DWELL	N/A		N/A		N/A
TIMING	+14	(+10)	+09		+13
MECH ADVANCE	18	(18)	16		19
TOTAL ADVANCE	43	(43)	38		47
PROPANE IDLE CK	0		120		0
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		HARD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	STUMBLE,STRETCHY		OK		STUMBLES
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle		Spk Plg Frng Volt. Total Adv. @ 2500		Idle Speed Ign. Timing @ Idle

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	Unknown	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Rough Idle
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	027.11	234.15	1164.2	07.70	06.56	
	CS (grams)	027.63	324.59	1277.9	07.31	06.31	
DATE: 4-18-79	HT (grams)	015.75	161.54	1082.7	08.89	07.60	
ODOM: 45268	COMP (GPM)	006.43	068.98	0319.4	02.09	01.80	19.8
	HFET (GPM)	001.28	010.61	0246.7	02.46		33.16
MAINT RETEST	FTP CT (grams)	015.26	202.07	1247.9	05.40	05.06	
	CS (grams)	010.63	119.80	1696.3	04.51	04.23	
DATE: 5-22-79	HT (grams)	007.76	090.56	1259.3	05.84	05.47	
ODOM: 46568	COMP (GPM)	002.88	034.44	0393.4	01.35	01.27	19.4
	HFET (GPM)	000.52	005.42	0250.3	01.80		34.05
RETEST	FTP CT (grams)	011.82	207.51	1259.5	09.19	08.34	
	CS (grams)	008.60	105.90	1571.3	06.78	06.15	
DATE: 6-20-79	HT (grams)	005.81	064.69	1186.5	10.01	09.08	
ODOM: 48404	COMP (GPM)	002.27	030.93	0371.9	02.19	01.99	20.7
	HFET (GPM)	000.41	003.09	0247.2	02.91		35.01

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2900.0	00.8	1167.9	0220	01.2
LOW	3560.2	02.0	1198.9	0310	02.1
IDLE	9822.3	07.9	0048.2	0530	07.8
HI	1302.9	00.2	1043.9	0090	00.1
LOW	1385.5	00.4	0345.1	0100	00.5
IDLE	1278.4	00.5	0051.5	0110	00.7
HI	0967.5	00.1	1616.7	0060	00.1
LOW	1178.5	00.3	0685.6	0080	00.3
IDLE	1915.8	01.4	0100.7	0100	01.3

EPA NO. 52110

APPENDIX D

EPA NO.: 52111 MAKE/MODEL: PLYMOUTH/VALIANT ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	150	150	170	F	20	15	20	P	125	55	140	P
DEQ CO (%)	6.0	3.4	6.1	F	0.1	0.0	0.0	P	3.6	0.2	4.0	F
DEQ RPM	750	-	750	F2	850	-	850	P	1050	-	1050	P
DEQ QUEUE TIME	10 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	190	70	230	-	60	60	20	-	140	110	120	-
HTS CO (%)	6.3	0.2	6.3	-	0.3	0.3	0.0	-	3.6	0.9	2.3	-
HTS NOX (ppm)	100	220	110	-	100	240	80	-	130	280	120	-
HTS RPM	750	-	750	-	850	-	850	-	980	-	950	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	82	48	30.10		64	58	30.25		78	23	30.10	
HTS	72	31	29.98		81	41	30.16		85	33	30.08	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	720	(755)	780	740
DWELL	N/A		N/A	N/A
TIMING	000	(000)	000	000
MECH ADVANCE	17	(21)	26	24
TOTAL ADVANCE	40	(38)	49	47
PROPANE IDLE CK	0		230	80

DRIVEABILITY			
ENG STARTING	GOOD	HARD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	STUMBLES	OK
IDLE LIMITER CAPS:	MISSING	MISSING	MISSING

PROBLEM AREAS:

- Mech. Adv. @ 2500
- Spk Plg Frng Volt.

Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500

Mech. Adv. @ 2500
Total Adv. @ 2500
Spk Plg Frng Volt.
Vacuum Hoses - Routing

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Anti Diesel Solenoid
PERFORMED BY:	Independent Repair Garage	Independent Repair Garage
COST:	$9.00	$19.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Hard Starting
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.27	126.78	1823.3	14.26	12.14	
DATE: 4-17-79	CS (grams)	007.82	241.00	1632.6	07.39	06.29	
	HT (grams)	005.43	101.95	1505.9	10.50	08.93	
ODOM: 32772	COMP (GPM)	001.87	047.15	0436.7	02.60	02.21	17.2
	HFET (GPM)	000.31	003.42	0363.4	02.62		23.98
MAINT RETEST	FTP CT (grams)	006.90	054.46	1973.5	13.67	12.14	
DATE: 5-01-79	CS (grams)	000.53	001.58	1988.4	08.07	07.17	
	HT (grams)	001.70	008.13	1684.2	10.26	09.27	
ODOM: 32908	COMP (GPM)	000.60	003.95	0506.3	02.64	02.36	17.2
	HFET (GPM)	000.08	000.32	0374.9	02.68		23.61
RETEST	FTP CT (grams)	005.45	074.62	1900.6	15.93	16.05	
DATE: 6-01-79	CS (grams)	002.40	026.59	2006.9	08.24	08.24	
	HT (grams)	003.22	030.34	1615.4	09.98	09.75	
ODOM: 34079	COMP (GPM)	000.88	010.13	0499.3	02.77	02.76	17.1
	HFET (GPM)	000.12	000.68	0335.2	02.46		26.34

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0236.4	00.0	0988.8	0000	00.0
LOW	1564.0	00.9	0716.7	0080	01.0
IDLE	3200.1	04.7	0064.9	0140	04.6
HI	0129.3	00.0	1079.6	0020	00.0
LOW	0089.5	00.0	0640.3	0010	00.0
IDLE	0083.4	00.0	0105.5	0010	00.0
HI	0146.2	00.0	1107.0	0010	00.0
LOW	0134.0	00.0	0808.6	0010	00.0
IDLE	1165.2	00.4	0114.6	0070	00.5

EPA NO. 52111

APPENDIX D

EPA NO.: 52112 MAKE/MODEL: DODGE/CORONET ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	325	90	360	F	30	20	35	P	20	30	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.1	0.0	P	0.0	0.1	0.0	P
DEQ RPM	750	-	825	P	1025	-	1025	P	800	-	850	P
DEQ QUEUE TIME	15 Minutes				23 Minutes				5 Minutes			
HTS HC (ppm)	2080	940	1240	-	120	30	50	-	60	30	20	-
HTS CO (%)	0.5	0.4	0.2	-	0.2	0.0	0.0	-	0.2	0.6	0.0	-
HTS NOX (ppm)	90	390	100	-	110	140	100	-	90	300	90	-
HTS RPM	800	-	800	-	910	-	780	-	740	-	780	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	64	36	30.00		58	57	30.10		65	43	30.30	
HTS	75	34	29.96		65	52	30.04		77	35	30.25	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	730	(755)	690		790
DWELL	N/A		N/A		N/A
TIMING	+01	(000)	+01		000
MECH ADVANCE	16	(18)	18		16
TOTAL ADVANCE	39	(40)	18		17
PROPANE IDLE CK	190		390		360
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	ENG. MISS		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Cyl. Power Dist. Vacuum Hoses Off Air Filters		Ign. Timing @ Idle Total Adv. @ 2500 Spk Plg Frng Volt. Vacuum Hoses Routing		EGR Func. Check Total Adv. @ 2500 Vacuum Hoses Routing

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Replaced Dist. Cap & Rotor Replaced Carburetor & Air Filter Replaced PCV Valve, Ign. Coil Adjusted Choke & Idle Speed Adjusted Timing	None
PERFORMED BY:	Independent Repair Garage	
COST:	$178.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.52	355.51	2434.5	10.96	09.87	
DATE: 4-24-79	CS (grams)	009.75	002.65	3054.9	09.18	08.21	
	HT (grams)	024.62	022.14	2296.1	14.29	12.78	
ODOM: 104815	COMP (GPM)	004.35	022.42	0721.4	02.94	02.63	11.5
	HFET (GPM)	000.45	000.66	0483.5	03.57		18.25
MAINT RETEST	FTP CT (grams)	013.80	301.91	2346.6	07.14	06.20	
DATE: 5-02-79	CS (grams)	001.76	005.93	2761.0	08.38	07.29	
	HT (grams)	002.78	023.99	2283.8	10.88	09.47	
ODOM: 105027	COMP (GPM)	001.24	019.92	0676.2	02.35	02.05	12.5
	HFET (GPM)	000.09	000.59	0513.6	02.00		17.23
RETEST	FTP CT (grams)	015.92	420.74	2225.1	06.71	06.00	
DATE: 5-31-79	CS (grams)	002.08	011.31	2833.1	08.69	07.76	
	HT (grams)	002.88	033.22	2575.2	09.83	08.84	
ODOM: 105448	COMP (GPM)	001.41	028.15	0701.0	02.29	02.05	11.8
	HFET (GPM)	000.08	000.45	0487.8	01.79		18.14

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0413.8	00.0	0969.7	0070	00.1
LOW	0572.9	00.0	1867.4	0100	00.1
IDLE	2894.7	00.0	0186.7	0420	00.1
HI	0181.3	00.0	0423.0	0010	00.0
LOW	0236.4	00.0	0647.4	0020	00.0
IDLE	0190.5	00.0	0141.3	0020	00.0
HI	0207.4	00.0	0451.9	0030	00.0
LOW	0195.2	00.0	0534.4	0040	00.0
IDLE	0207.4	00.0	0131.6	0040	00.0

EPA NO. 52112

APPENDIX D

EPA NO.: 61101 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	15	20	25	P	10	70	20	P
DEQ CO (%)	0.0	0.0	0.0	P	0.5	0.5	0.0	P
DEQ RPM	1050	-	1050	P	1000	-	1000	P
DEQ QUEUE TIME	20 Minutes				15 Minutes			
HTS HC (ppm)	10	20	20	-	30	10	20	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	130	50	-	60	160	60	-
HTS RPM	1170	-	1240	-	1060	-	1150	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	42	30.10	48	78	30.03
HTS	75	37	30.18	69	39	29.84

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	860	(855)	980
DWELL	N/A		N/A
TIMING	+06	(+06)	+09
MECH ADVANCE	22	(20)	20
TOTAL ADVANCE	46	(44)	43
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	STUMBLES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Air Filters - Cond.

Idle Speed
Air Filters - Cond.
EGR Func. Check

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: Rough Idle, Dieseling
OWNER SATISFIED WITH VEH: Most of the Time

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.09	035.05	1907.9	12.02	09.94	
DATE: 3-09-79	CS (grams)	001.96	006.88	2031.4	06.51	05.39	
ODOM: 14848	HT (grams)	001.85	008.13	1458.6	08.49	07.07	
	COMP (GPM)	000.87	003.54	0491.1	02.20	01.83	17.8
	HFET (GPM)	000.11	000.42	0304.5	02.05		29.03
RETEST	FTP CT (grams)	004.13	028.49	1771.9	09.50	08.30	
DATE: 4-11-79	CS (grams)	001.44	005.16	2067.3	06.04	05.28	
ODOM: 15766	HT (grams)	001.94	010.47	1424.7	08.05	06.97	
	COMP (GPM)	000.58	003.12	0485.5	01.96	01.71	18.0
	HFET (GPM)	000.10	000.43	0312.8	02.45		28.26

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0260.8	00.0	0647.4	0040	00.0
LOW	0221.1	00.0	0368.1	0040	00.0
IDLE	0095.7	00.0	0057.7	0040	00.0
HI	0311.5	00.0	0900.8	0030	00.1
LOW	0198.2	00.0	0381.5	0020	00.0
IDLE	0146.2	00.0	0056.4	0010	00.0

EPA NO. 61101

APPENDIX D

EPA NO.:61102 MAKE/MODEL:FORD/MUSTANG ENG: 140-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	15	20	15	P	20	20	20	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	750	-	750	P	1000	-	1000	P
DEQ QUEUE TIME	5 Minutes				10 Minutes			
HTS HC (ppm)	30	20	20	-	70	30	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	140	60	-	50	120	40	-
HTS RPM	900	-	910	-	920	-	990	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	54	56	30.05	59	62	30.30
HTS	65	52	29.96	69	51	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	660	(755)	700
DWELL	N/A		N/A
TIMING	+18	(+20)	+18
MECH ADVANCE	14	(23)	25
TOTAL ADVANCE	50	(47)	44
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500

Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	002.84	022.87	1778.7	12.83	10.72	
DATE:3-20-79	CS (grams)	001.48	000.39	1773.7	07.99	06.68	
ODOM:12461	HT (grams)	001.51	002.91	1488.3	12.91	10.76	
	COMP (GPM)	000.47	001.58	0451.6	02.78	02.32	19.5
	HFET (GPM)	000.21	000.14	0325.3	04.00		27.18
RETEST	FTP CT (grams)	003.29	033.73	1607.6	13.86	12.24	
DATE:4-26-79	CS (grams)	001.36	000.45	1699.6	09.54	08.59	
ODOM:13437	HT (grams)	001.50	003.31	1396.6	13.36	12.36	
	COMP (GPM)	000.48	002.25	0424.9	03.08	02.79	20.6
	HFET (GPM)	000.20	000.14	0311.8	04.53		28.36

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0296.2	00.0	1218.7	0030	00.0
LOW	0394.1	00.0	0585.3	0060	00.0
IDLE	0201.3	00.0	0080.6	0020	00.0
HI	0285.3	00.0	1406.7	0060	00.0
LOW	0331.2	00.0	0726.2	0060	00.0
IDLE	0208.8	00.0	0067.3	0050	00.0

APPENDIX D

EPA NO.: 61103 MAKE/MODEL: FORD/GRANADA ENG: 250-1V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	35	30	45	P	25	65	40	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	1000	-	1000	P	950	-	950	P
DEQ QUEUE TIME	20 Minutes				0 Minutes			
HTS HC (ppm)	50	60	40	-	210	60	30	-
HTS CO (%)	0.0	0.0	0.0	-	1.0	0.0	0.0	-
HTS NOX (ppm)	70	80	70	-	140	100	70	-
HTS RPM	940	-	950	-	960	-	940	-

	°F	RH	BARO	°F	RH	BARO
DEQ	61	38	30.15	62	57	30.15
HTS	68	54	30.10	71	59	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	640	(600)	620
DWELL	N/A		N/A
TIMING	+14	(+12)	+14
MECH ADVANCE	23	(21)	21
TOTAL ADVANCE	44	(41)	47
PROPANE IDLE CK	70		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STRETCHY	OK
IDLE LIMITER CAPS:	OK	OK
PROBLEM AREAS:	None	Total Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.06	030.86	2183.1	12.88	10.87	
DATE:3-23-79	CS (grams)	002.18	000.24	2141.9	12.31	10.39	
ODOM:29895	HT (grams)	003.05	003.27	1899.2	12.96	10.87	
	COMP (GPM)	000.75	002.05	0555.1	03.37	02.83	15.8
	HFET (GPM)	000.25	000.09	0436.8	03.11		20.26
RETEST	FTP CT (grams)	008.12	037.72	2077.1	10.86	09.46	
DATE:4-26-79	CS (grams)	002.23	000.25	2098.7	11.53	10.05	
ODOM:31312	HT (grams)	003.00	002.20	1828.1	10.86	09.46	
	COMP (GPM)	000.99	002.36	0537.9	02.99	02.60	16.3
	HFET (GPM)	000.23	000.07	0416.8	02.72		21.23

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0221.1	00.0	0606.9	0060	00.0
LOW	0236.4	00.0	0518.5	0060	00.0
IDLE	0233.3	00.0	0322.7	0070	00.0
HI	0231.9	00.0	0551.4	0040	00.0
LOW	0250.3	00.0	0704.2	0050	00.0
IDLE	0271.7	00.0	0311.1	0050	00.0

EPA NO. 61103

APPENDIX D

EPA NO.: 61104 MAKE/MODEL:PLY/VOLARE ENG: 318-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	70	45	P	15	35	35	P
DEQ CO (%)	0.0	0.5	0.0	P	0.0	0.5	0.0	P
DEQ RPM	800	-	800	P	825	-	825	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	130	30	140	-	20	50	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	1.2	0.0	-
HTS NOX (ppm)	80	150	80	-	60	90	70	-
HTS RPM	800	-	810	-	880	-	850	-

	°F	RH	BARO	°F	RH	BARO
DEQ	47	78	29.85	60	67	30.00
HTS	70	44	29.76	76	51	29.88

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	760	(755)	770
DWELL	N/A		N/A
TIMING	+02	(+02)	+04
MECH ADVANCE	16	(18)	19
TOTAL ADVANCE	29	(40)	33
PROPANE IDLE CK	310		260

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Air Filters - condition
- Total Adv @ 2500
- Spark Plug Firing Volt.

Total Adv @ 2500
Vacuum Hose for CCIE
Solonoid is broken
Air Filters - Condition

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	011.59	070.03	2382.5	08.72	07.62		HI	0548.4	00.1	0344.2	0050	00.1
DATE:4-11-79		CS (grams)	001.50	009.13	2515.4	04.56	03.98		LOW	0242.5	00.0	0626.0	0040	00.0
ODOM:15527		HT (grams)	002.36	013.81	2097.1	07.08	06.08		IDLE	0120.1	00.0	0134.1	0020	00.0
		COMP (GPM)	001.04	006.28	0631.4	01.65	01.43	13.8						
	HFET	(GPM)	000.32	002.32	0463.4	01.53		18.95						
RETEST	FTP	CT (grams)	007.49	153.60	2375.6	06.21	05.72		HI	0802.3	00.3	0339.5	0040	00.2
DATE:5-50-79		CS (grams)	001.82	015.21	2579.5	04.42	04.05		LOW	0343.4	00.0	0637.9	0020	00.0
ODOM:15885		HT (grams)	003.68	036.66	2080.3	06.13	05.65		IDLE	0172.1	00.0	0136.5	0020	00.0
		COMP (GPM)	000.95	013.62	0638.2	01.41	01.30	13.4						
	HFET	(GPM)	000.35	002.75	0478.3	01.49		18.33						

EPA NO 61104

APPENDIX D

EPA NO.: 61105 MAKE/MODEL: CHEV/CHEVETTE ENG: 098-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	30	30	65	P	5	5	5	P
DEQ CO (%)	0.2	0.5	0.7	P	0.0	0.0	0.0	P
DEQ RPM	1050	-	1150	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	30	20	20	-	40	20	40	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	200	120	-	145	210	140	-
HTS RPM	1070	-	1060	-	1030	-	1030	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	78	29.70	57	51	30.25
HTS	65	56	29.78	68	42	30.19

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(800)	660
DWELL	N/A		N/A
TIMING	+19	(+10)	+19
MECH ADVANCE	23	(16)	29
TOTAL ADVANCE	49	(42)	50
PROPANE IDLE CK	120		300

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $7.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.54	091.15	1220.4	08.73	07.52	
	CS (grams)	000.32	000.89	1308.4	08.80	07.63	
DATE: 4-13-79	HT (grams)	001.82	025.50	1124.4	07.61	06.60	
ODOM: 17702	COMP (GPM)	000.44	007.28	0329.9	02.25	01.95	25.9
	HFET (GPM)	000.38	008.59	0249.8	01.90		33.53
RETEST	FTP CT (grams)	004.49	085.97	1177.2	08.94	07.92	
	CS (grams)	000.27	001.03	1252.3	09.13	08.03	
DATE: 5-10-79	HT (grams)	001.10	019.17	1069.3	07.71	06.83	
ODOM: 17969	COMP (GPM)	000.38	006.52	0315.7	02.32	02.04	27.1
	HFET (GPM)	000.23	005.71	0240.9	02.08		35.39

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1042.8	00.7	0920.2	0120	01.1
LOW	0146.2	00.0	1983.0	0070	00.1
IDLE	0103.4	00.0	0330.6	0040	00.1
HI	0279.2	00.1	0611.6	0040	00.2
LOW	0068.1	00.0	1831.6	0020	00.0
IDLE	0046.7	00.0	0160.4	0020	00.0

APPENDIX D

EPA NO.: 61106 MAKE/MODEL: FORD/TORINO ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	185	330	270	P	250	325	220	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	850	P	825	-	825	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	290	160	300	-	290	230	270	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	130	50	-	60	160	80	-
HTS RPM	800	-	820	-	850	-	860	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	54	49	30.00	64	42	30.40
HTS	72	31	29.96	79	31	30.30

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(655)	550
DWELL	N/A		N/A
TIMING	+04	(+04)	+03
MECH ADVANCE	13	(18)	14
TOTAL ADVANCE	39	(46)	44
PROPANE IDLE CK	230		210

DRIVEABILITY		
ENG STARTING	GOOD	HARD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	STUMBLES
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:

Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500
Relative Cyl. Compression
Air Filter - Condition

Idle Speed
Mech. Adv. @ 2500
Relative Cyl. Compression
Air Filter - Condition

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.52	057.25	2734.2	10.42	09.06	
	CS (grams)	006.96	000.95	2716.6	08.60	07.48	
DATE: 4-18-79	HT (grams)	006.77	010.41	2345.1	10.45	09.03	
ODOM: 39731	COMP (GPM)	002.16	004.20	0697.2	02.54	02.20	12.5
	HFET (GPM)	000.69	000.44	0537.7	02.73		16.40
RETEST	FTP CT (grams)	013.20	073.56	2529.4	09.53	08.30	
	CS (grams)	007.95	002.65	2686.1	09.11	07.99	
DATE: 5-12-79	HT (grams)	007.25	011.97	2232.6	10.11	08.71	
ODOM: 41001	COMP (GPM)	002.37	005.48	0672.9	02.53	02.20	12.9
	HFET (GPM)	000.76	000.39	0509.6	02.73		17.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0523.9	00.0	0351.4	0130	00.0
LOW	0768.6	00.0	0277.4	0170	00.0
IDLE	1010.3	00.0	0201.0	0220	00.0
HI	0492.0	00.0	0432.5	0040	00.0
LOW	0626.6	00.0	0369.4	0060	00.0
IDLE	0993.8	00.0	0189.8	0120	00.0

APPENDIX D

EPA NO.: 61107 MAKE/MODEL: CHEV/MALIBU ENG: 305-2V TRANS: AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	20	20	20	P	40	35	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	90	50	80	-	130	60	130	-
HTS CO (%)	0.0	0.1	0.0	-	0.2	0.2	0.1	-
HTS NOX (ppm)	100	220	100	-	90	210	80	-
HTS RPM	830	-	830	-	890	-	850	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	48	30.05	63	44	30.25
HTS	76	31	30.01	75	40	30.15

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(600)	530
DWELL	N/A		N/A
TIMING	+07	(+08)	+07
MECH ADVANCE	21	(22)	18
TOTAL ADVANCE	38	(40)	38
PROPANE IDLE CK	110		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: PCV Valve - Hose Collapsed

Idle Speed
PCV Valve - Hose Collapsed
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.85	129.32	2090.1	20.69	18.83	
DATE: 4-24-79	CS (grams)	002.43	015.79	2197.7	10.66	09.70	
	HT (grams)	002.65	020.41	1861.7	17.07	15.42	
ODOM: 35889	COMP (GPM)	001.09	011.07	0554.3	03.90	03.55	15.4
	HFET (GPM)	000.15	001.65	0430.6	04.72		20.45
RETEST	FTP CT (grams)	008.83	118.85	1981.7	19.99	18.74	
DATE: 5-22-79	CS (grams)	002.76	022.03	2245.5	09.91	09.29	
	HT (grams)	002.98	029.17	1858.4	15.29	14.33	
ODOM: 36303	COMP (GPM)	001.10	011.97	0554.3	03.63	03.40	15.4
	HFET (GPM)	000.17	002.72	0423.1	04.69		20.72

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0462.7	00.0	1516.5	0090	00.3
LOW	0221.1	00.0	0707.1	0070	00.1
IDLE	0860.4	00.4	0143.7	0140	00.6
HI	0406.3	00.2	0866.8	0040	00.1
LOW	0231.9	00.0	0847.4	0030	00.0
IDLE	1569.1	00.6	0061.2	0140	00.6

EPA NO. 61107

APPENDIX D

EPA NO.: 62101 MAKE/MODEL: CHEV/NOVA ENG: 305-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	360	190	370	F	215	80	40	P	60	35	60	P
DEQ CO (%)	4.6	1.7	3.7	F	0.7	0.2	0.0	P	0.2	0.1	0.1	P
DEQ RPM	1000	-	1000	P	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	10 Minutes				20 Minutes				0 Minutes			
HTS HC (ppm)	420	130	370	-	150	40	100	-	40	20	40	-
HTS CO (%)	3.7	0.5	3.1	-	0.1	0.0	0.4	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	240	120	-	130	230	120	-	90	240	80	-
HTS RPM	950	-	1000	-	910	-	900	-	860	-	890	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	56	47	30.15		52	69	29.90		57	50	30.12	
HTS	73	38	30.30		70	48	29.84		62	59	30.04	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	560	(600)	540	570
DWELL	N/A		N/A	N/A
TIMING	+09	(+08)	+08	+10
MECH ADVANCE	21	(22)	22	22
TOTAL ADVANCE	42	(40)	38	40
PROPANE IDLE CK	0		90	70
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	STUMBLES		SURGES	STUMBLES
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Spk Plg Frng Volt.		None	Ign. Timing @ Idle

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	013.60	142.52	1933.2	17.57	15.22	
DATE: 3-08-79	CS (grams)	015.15	237.31	1824.6	06.51	05.64	
ODOM: 22872	HT (grams)	008.73	109.10	1637.0	13.29	11.51	
	COMP (GPM)	003.46	048.10	0478.5	02.89	02.50	15.7
	HFET (GPM)	000.43	005.55	0407.7	03.93		21.22
MAINT RETEST	FTP CT (grams)	010.77	106.48	2054.6	18.65	16.46	
DATE: 3-19-79	CS (grams)	005.01	060.68	2116.7	08.07	07.12	
ODOM: 22997	HT (grams)	003.70	036.90	1818.8	14.41	12.63	
	COMP (GPM)	001.57	017.00	0538.3	03.24	02.85	15.6
	HFET (GPM)	000.21	002.98	0422.4	04.14		20.73
RETEST	FTP CT (grams)	012.38	099.08	1956.8	15.98	14.68	
DATE: 4-23-79	CS (grams)	004.27	043.34	2133.4	07.15	06.57	
ODOM: 23517	HT (grams)	006.36	042.64	1763.3	11.81	10.85	
	COMP (GPM)	001.76	014.70	0530.7	02.77	02.54	15.9
	HFET (GPM)	000.47	010.81	0396.1	02.91		21.39

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0447.4	00.0	1411.4	0040	00.0
LOW	0487.2	00.0	0910.1	0050	00.0
IDLE	4790.6	04.4	0103.1	0370	04.2
HI	1077.6	00.3	0893.3	0000	00.3
LOW	0337.3	00.0	0733.4	0000	00.0
IDLE	0527.0	00.2	0062.5	0030	00.2
HI	0902.0	00.3	0927.5	0100	00.2
LOW	0271.7	00.0	0791.6	0040	00.0
IDLE	1131.5	00.5	0097.6	0150	00.5

EPA NO. 62101

APPENDIX D

EPA NO.: 62102 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	325	160	390	F	40	105	60	P	35	180	75	P
DEQ CO (%)	4.6	1.1	4.7	F	0.1	0.9	0.1	P	0.1	0.2	0.1	P
DEQ RPM	850	-	850	P	825	-	850	P	800	-	850	P
DEQ QUEUE TIME	25 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	430	300	420	-	30	40	30	-	50	50	50	-
HTS CO (%)	4.2	2.5	4.2	-	0.1	1.4	0.1	-	0.1	0.4	0.1	-
HTS NOX (ppm)	120	160	120	-	80	100	80	-	110	140	100	-
HTS RPM	880	-	890	-	840	-	870	-	770	-	790	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	52	30.10		55	53	30.30		63	48	30.35	
HTS	75	40	30.06		82	25	30.24		78	38	30.29	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	700	(755)	750		780
DWELL	N/A		N/A		N/A
TIMING	+03	(+02)	00		+01
MECH ADVANCE	17	(18)	16		14
TOTAL ADVANCE	36	(40)	16		15
PROPANE IDLE CK	0		250		290
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Total Adv. @ 2500		Vac. Adv. Hose Plgd Spk Plg Frng Volt. Mech. Adv. @ 2500 Total Adv. @ 2500		Mech. Adv. @ 2500 Total Adv. @ 2500 Relative Cyl. Comp. Vac. Adv. Hose Plgd.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Adjusted Carburetor Adjusted Choke Adjusted Idle Speed Adjusted Timing	Replaced Air Filter Replaced Oil Filter Replaced Engine Oil
PERFORMED BY:	Independent Repair Garage	Service Station
COST:	$44.00	$19.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	Hardstarting, Stalling, Poor Acceleration and Dieseling Most of the Time
OWNER SATISFIED WITH VEH:	Yes	

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	019.82	311.10	1825.9	06.54	05.99	
DATE: 3-31-79	CS (grams)	019.65	287.30	1904.4	04.75	04.38	
	HT (grams)	013.65	212.73	1712.6	06.35	05.76	
ODOM: 40457	COMP (GPM)	004.79	072.31	0488.8	01.49	01.37	14.4
	HFET (GPM)	001.94	023.72	0407.6	01.71		19.66
MAINT RETEST	FTP CT (grams)	017.60	441.86	2232.6	03.35	02.86	
DATE: 4-21-79	CS (grams)	012.68	388.55	2446.2	02.35	02.00	
	HT (grams)	011.54	315.17	2012.3	03.05	02.60	
ODOM: 41237	COMP (GPM)	003.58	101.09	0607.1	00.74	00.63	11.4
	HFET (GPM)	001.98	068.50	0452.9	00.74		15.65
RETEST	FTP CT (grams)	010.17	164.35	2221.8	10.29	09.06	
DATE: 5-19-79	CS (grams)	004.82	038.95	2583.9	08.78	07.73	
	HT (grams)	005.34	071.80	2051.0	11.40	10.05	
ODOM: 43202	COMP (GPM)	001.63	020.07	0627.8	02.63	02.31	13.3
	HFET (GPM)	000.46	005.13	0447.3	03.07		19.41

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1845.4	00.4	0590.1	0120	00.5
LOW	3260.2	00.5	0432.6	0260	00.6
IDLE	5260.8	04.7	0081.6	0350	04.6
HI	1778.1	02.2	0193.8	0070	02.2
LOW	2576.5	03.6	0081.6	0120	03.4
IDLE	0600.4	00.0	0124.6	0050	00.1
HI	0707.5	00.2	1005.6	0040	00.2
LOW	0771.7	00.1	0597.3	0050	00.2
IDLE	0508.6	00.1	0146.1	0040	00.1

EPA NO. 62102

APPENDIX D

EPA NO.: 62103 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 225-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	175	75	190	F	45	35	90	P	25	50	85	P
DEQ CO (%)	2.8	0.1	1.9	F	0.1	0.0	0.0	P	0.0	0.2	0.0	P
DEQ RPM	1075	-	1075	F	900	-	900	P	1300	-	1250	F
DEQ QUEUE TIME	5 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	170	100	170	-	170	80	150	-	100	80	100	-
HTS CO (%)	1.4	0.3	0.5	-	0.2	0.0	0.0	-	0.1	0.1	0.0	-
HTS NOX (ppm)	60	120	130	-	100	170	90	-	100	200	100	-
HTS RPM	1020	-	1030	-	870	-	920	-	1110	-	1200	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	53	63	30.05		62	34	30.23		65	32	30.05	
HTS	65	44	29.98		74	33	30.18		79	25	30.00	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	1020	(755)	820		1060
DWELL	N/A		N/A		N/A
TIMING	+02	(+02)	+02		+02
MECH ADVANCE	14	(19)	16		22
TOTAL ADVANCE	33	(36)	36		35
PROPANE IDLE CK	80		290		270

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK
IDLE LIMITER CAPS:	OK	OK	OK

PROBLEM AREAS:	Idle Speed Mech. Adv. @ 2500 Spk Plg Frng Volt.	Fast Idle Speed Mech. Adv. @ 2500 Spk Plg Frng Volt.	Idle Speed Mech. Adv. @ 2500 Vacuum Hoses - Disc.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Adjusted Carburetor Adjusted Idle Speed	Adjusted Carburetor
PERFORMED BY:	Owner	Owner
COST:	$5.00	None
OWNER'S DRIVEABILITY EVAL:	Poor Acceleration	No Major Problems
OWNER SATISFIED WITH VEH:	Most of the Time	Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.63	108.82	1855.8	13.52	11.75	
DATE: 3-20-79	CS (grams)	007.14	060.03	1902.3	06.98	06.07	
	HT (grams)	008.64	093.46	1627.7	07.92	06.84	
ODOM: 24965	COMP (GPM)	002.16	021.35	0483.7	02.31	02.00	16.9
	HFET (GPM)	001.38	020.91	0373.2	02.11		21.61
MAINT RETEST	FTP CT (grams)	007.51	096.00	1938.3	13.16	11.98	
DATE: 3-27-79	CS (grams)	003.86	027.52	1927.0	06.03	05.45	
	HT (grams)	007.26	062.80	1643.5	07.01	06.34	
ODOM: 25060	COMP (GPM)	001.50	013.95	0493.0	02.09	01.89	17.1
	HFET (GPM)	000.74	008.81	0388.1	01.78		21.94
RETEST	FTP CT (grams)	020.18	159.63	1742.9	10.73	10.00	
DATE: 4-26-79	CS (grams)	001.90	004.08	1793.4	05.34	04.98	
	HT (grams)	005.60	026.14	1567.6	06.36	05.93	
ODOM: 25587	COMP (GPM)	001.84	011.68	0458.2	01.81	01.69	18.4
	HFET (GPM)	000.67	006.57	0373.9	01.85		22.95

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1502.8	00.8	0740.6	0090	01.0
LOW	0802.3	00.1	0432.6	0070	00.1
IDLE	2282.8	00.5	0384.8	0160	00.6
HI	1129.6	00.5	0635.5	0100	00.6
LOW	0600.4	00.0	0487.5	0080	00.1
IDLE	0358.7	00.0	0301.3	0070	00.0
HI	0686.0	00.2	0690.4	0040	00.2
LOW	0465.8	00.0	0415.9	0030	00.0
IDLE	0609.6	00.0	0086.4	0070	00.0

EPA NO. 62103

APPENDIX D

EPA NO.: 62104 MAKE/MODEL: FORD/GRAN TORINO WGN ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	320	145	260	F	115	130	95	P	40	135	60	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P	0.7	0.1	0.0	P
DEQ RPM	725	-	800	P	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				5 Minutes				5 Minutes			
HTS HC (ppm)	480	60	390	-	90	80	70	-	80	60	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	50	160	50	-	100	160	100	-	80	160	100	-
HTS RPM	760	-	740	-	900	-	910	-	810	-	880	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	53	77	29.85	54	48	30.30	63	44	30.35
HTS	65	56	29.76	67	33	30.32	87	25	30.30

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	550	(655)	540		670
DWELL	N/A		N/A		N/A
TIMING	+01	(+04)	+02		+05
MECH ADVANCE	15	(18)	16		16
TOTAL ADVANCE	43	(46)	43		43
PROPANE IDLE CK	210		40		20
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	OK		MISSING		MISSING
PROBLEM AREAS:	Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Cyl. Power Dist. Air Filter - Cond.		Idle Speed Ign. Timing @ Idle Air Filter - Cond.		Air Filters - Cond.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	None
PERFORMED BY:	Service Station	
COST:	$5.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.36	082.03	2504.8	08.33	07.29	
DATE: 4-13-79	CS (grams)	002.76	000.39	2435.4	08.60	07.59	
	HT (grams)	003.17	008.74	2115.7	10.15	08.96	
ODOM: 37189	COMP (GPM)	001.09	005.42	0629.1	02.40	02.11	13.8
	HFET (GPM)	000.31	000.18	0488.1	02.88		18.12
MAINT RETEST	FTP CT (grams)	004.76	078.48	2598.4	07.49	06.40	
DATE: 4-20-79	CS (grams)	002.45	000.41	2498.3	08.34	07.13	
	HT (grams)	002.45	009.87	2129.4	10.32	08.88	
ODOM: 37431	COMP (GPM)	000.79	005.30	0643.9	02.33	01.99	13.5
	HFET (GPM)	000.27	000.31	0481.5	02.81		18.37
RETEST	FTP CT (grams)	009.20	095.75	2294.8	06.84	06.28	
DATE: 5-15-79	CS (grams)	003.17	001.16	2406.4	06.56	06.03	
	HT (grams)	002.90	006.36	2012.7	08.66	07.95	
ODOM: 38325	COMP (GPM)	001.17	006.13	0605.4	01.93	01.77	14.3
	HFET (GPM)	000.32	000.24	0443.7	02.35		19.93

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0230.3	00.0	0528.1	0020	00.0
LOW	0294.5	00.0	0375.3	0040	00.0
IDLE	0346.5	00.0	0136.5	0050	00.0
HI	0300.6	00.0	0590.1	0030	00.0
LOW	0309.8	00.0	0430.2	0040	00.0
IDLE	0453.6	00.0	0050.6	0050	00.0
HI	0294.5	00.0	0516.1	0020	00.0
LOW	0340.4	00.0	0353.8	0040	00o0
IDLE	0839.0	00.0	0057.7	0060	00.0

EPA NO.62104

APPENDIX D

EPA NO.: 62105 MAKE/MODEL: PLYMOUTH/DUSTER ENG: 225-1V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	185	95	180	P	125	130	115	P	100	135	135	P
DEQ CO (%)	3.6	0.1	3.4	P	2.0	0.1	0.1	P	0.0	0.0	0.0	P
DEQ RPM	750	-	700	P	700	-	700	P	650	-	650	P
DEQ QUEUE TIME	10 Minutes				30 Minutes				15 Minutes			
HTS HC (ppm)	230	120	230	-	100	70	60	-	120	60	130	-
HTS CO (%)	3.8	0.2	3.3	-	0.0	0.0	0.0	-	0.0	0.2	0.0	-
HTS NOX (ppm)	100	200	100	-	95	300	80	-	100	270	80	-
HTS RPM	770	-	740	-	660	-	670	-	690	-	650	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	54	30.10		62	45	29.92		66	39	30.15	
HTS	74	29	30.02		84	33	29.91		71	41	30.08	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	660	(600)	550	590	
DWELL	N/A		N/A	N/A	
TIMING	+11	(+12)	+09	+11	
MECH ADVANCE	19	(19)	16	18	
TOTAL ADVANCE	34	(40)	42	41	
PROPANE IDLE CK	0		90	110	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	STUMBLES		OK	OK	
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING	
PROBLEM AREAS:	Total Adv. @ 2500 Air Filters - Cond.		Ign. Timing @ Idle Mech. Adv. @ 2500	None	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$17.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.65	202.16	1586.3	16.41	13.87	
DATE: 4-17-79	CS (grams)	007.59	130.12	1619.3	13.13	11.28	
ODOM: 43413	HT (grams)	009.49	182.52	1418.3	09.89	08.50	
	COMP (GPM)	002.40	042.81	0414.6	03.44	02.95	18.1
	HFET (GPM)	001.61	036.76	0341.8	03.19		21.91
MAINT RETEST	FTP CT (grams)	009.18	164.68	1577.1	16.06	14.15	
DATE: 5-16-79	CS (grams)	003.61	062.05	1672.7	11.06	09.75	
ODOM: 44112	HT (grams)	007.40	164.97	1427.1	08.82	07.92	
	COMP (GPM)	001.57	030.25	0421.9	03.07	02.71	18.7
	HFET (GPM)	001.41	037.33	0326.7	02.86		22.75
RETEST	FTP CT (grams)	009.35	159.08	1643.2	17.94	15.54	
DATE: 6-13-79	CS (grams)	003.44	068.26	1676.7	11.19	09.53	
ODOM: 44598	HT (grams)	006.89	163.19	1411.4	08.27	07.05	
	COMP (GPM)	001.52	030.62	0425.0	03.15	02.70	18.6
	HFET (GPM)	001.57	046.75	0327.9	02.36		21.82

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1989.2	00.8	1514.1	0120	01.0
LOW	1023.7	00.0	1380.4	0080	00.0
IDLE	3150.1	03.0	0131.8	0180	03.2
HI	1559.9	00.8	1628.7	0120	00.9
LOW	0440.0	00.1	1587.5	0040	00.1
IDLE	0384.9	00.0	0206.8	0050	00.0
HI	1691.5	00.9	1381.2	0120	01.0
LOW	0433.9	00.0	1332.7	0060	00.0
IDLE	0363.5	00.0	0185.0	0050	00.0

EPA NO. 62105

APPENDIX D

EPA NO.: 71101 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 225-2V TRANS:AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	105	65	P	30	90	90	P
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.7	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				5 Minutes			
HTS HC (ppm)	310	160	120	-	170	110	60	-
HTS CO (%)	0.2	0.3	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	120	60	-	60	120	70	-
HTS RPM	690	-	730	-	600	-	700	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	58	41	30.15		53	78	29.85	
HTS	73	38	30.36		64	51	29.76	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	610	(755)	660
DWELL	99	(99)	99
TIMING	+12	(+12)	+13
MECH ADVANCE	22	(19)	21
TOTAL ADVANCE	45	(35)	39
PROPANE IDLE CK	170		160
DRIVEABILITY			
ENG STARTING	GOOD		GOOD
TRANSMISSION	OK		OK
CLUTCH	N/A		N/A
BRAKES	OK		OK
OVERALL PERF	OK		OK
IDLE LIMITER CAPS:	OK		OK

PROBLEM AREAS: Idle Speed
Cyl. Power Dist.
Total Adv. @ 2500

Idle Speed
Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Air Filter
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Service Station
COST: $24.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.88	199.76	1811.5	05 30	04.70	
	CS (grams)	001.34	020.62	1881.4	04.28	03.80	
DATE: 3-19-79	HT (grams)	003.92	066.31	1618.8	03.91	03.40	
ODOM: 34470	COMP (GPM)	000.99	019.24	0477.7	01.17	01.03	17.4
	HFET (GPM)	000.19	003.63	0389.5	01.30		22.41
RETEST	FTP CT (grams)	006.89	166.09	1905.8	05.58	04.79	
	CS (grams)	001.71	019.57	1887.0	04.23	03.61	
DATE: 4-13-79	HT (grams)	005.42	059.32	1681.5	04.68	04.02	
ODOM: 35664	COMP (GPM)	001.04	016.64	0488.7	01.24	01.06	17.1
	HFET (GPM)	000.25	003.01	0393.0	01.34		22.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0163.0	00.0	0551.9	0020	00.0
LOW	0135.4	00.0	2325.8	0030	00.0
IDLE	0095.7	00.0	0174.7	0020	00.0
HI	0331.2	00.0	0289.3	0020	00.0
LOW	0254.7	00.0	1824.5	0020	00.0
IDLE	0135.4	00.0	0105.5	0020	00.0

APPENDIX D

EPA NO.: 71102 MAKE/MODEL: FORD/T-BIRD ENG: 400-2V TRANS:AUTOMATIC

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	185	95	130	P	160	165	135	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	825	-	900	P	950	-	950	P
DEQ QUEUE TIME	27 Minutes				10 Minutes			
HTS HC (ppm)	480	40	110	-	140	50	80	-
HTS CO (%)	1.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	110	80	-	90	120	110	-
HTS RPM	800	-	900	-	800	-	830	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	42	30.15	54	49	30.30
HTS	76	38	30.28	64	38	30.22

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(600)	510
DWELL	99	(99)	99
TIMING	+01	(+08)	+01
MECH ADVANCE	16	(23)	13
TOTAL ADVANCE	41	(51)	42
PROPANE IDLE CK	40		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
Total Adv. @ 2500

Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500
Spark Plug Firing Voltage
Total Adv. @ 2500

MAINTENANCE MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.71	024.88	2734.6	06.54	05.76	
	CS (grams)	002.21	001.38	2575.7	04.75	04.23	
DATE:3-12-79	HT (grams)	002.87	007.80	2182.1	06.23	05.58	
ODOM:20743	COMP (GPM)	000.73	002.20	0666.0	01.48	01.32	13.2
	HFET (GPM)	000.20	000.03	0495.3	01.49		17.88
RETEST	FTP CT (grams)	005.87	021.56	2778.1	07.46	06.31	
	CS (grams)	002.32	000.33	2731.3	06.13	05.19	
DATE:4-20-79	HT (grams)	002.30	002.95	2326.8	07.74	06.55	
ODOM:21678	COMP (GPM)	000.82	001.50	0700.3	01.83	01.55	12.6
	HFET (GPM)	000.18	000.04	0512.0	01.73		17.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0150.7	00.0	0303.6	0010	00.0
LOW	0211.9	00.0	0179.5	0025	00.0
IDLE	0218.0	00.0	0124.6	0040	00.0
HI	0172.1	00.0	0399.1	0020	00.0
LOW	0193.5	00.0	0215.3	0030	00.0
IDLE	0267.0	00.0	0138.9	0040	00.0

EPA NO.71102

APPENDIX D

EPA NO.: 71103 MAKE/MODEL: CADILLAC/SEVILLE ENG: 350-FI TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	100	230	170	P				
DEQ CO (%)	0.0	0.0	0.0	P				
DEQ RPM	750	-	800	P	No Retest - Vehicle Dropped from Program			
DEQ QUEUE TIME	20 Minutes							
HTS HC (ppm)	170	30	200	-				
HTS CO (%)	0.0	0.0	0.0	-				
HTS NOX (ppm)	40	180	60	-				
HTS RPM	770	-	770	-				

	°F	RH	BARO	°F	RH	BARO
DEQ	56	43	30.15			
HTS	70	44	30.20			

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	700	(655)
DWELL	N/A	
TIMING	+07	(+06)
MECH ADVANCE	26	(24)
TOTAL ADVANCE	45	(42)
PROPANE IDLE CK	170	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	OK

IDLE LIMITER CAPS: FI

PROBLEM AREAS: Cyl. Power Dist.

MAINTENANCE

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	020.00	163.41	2238.1	09.49	07.79	
DATE: 3-09-79	CS (grams)	001.82	005.39	2456.6	04.94	04.05	
ODOM: 27305	HT (grams)	003.75	012.79	1997.3	07.04	05.77	
	COMP (GPM)	001.68	011.06	0607.7	01.74	01.43	14.1
	HFET (GPM)	000.11	000.05	0412.0	01.54		21.50
RETEST	FTP CT (grams)						
DATE:	CS (grams)						
ODOM:	HT (grams)						
	COMP (GPM)						
	HFET (GPM)						

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0329.8	00.0	0561.1	0060	00.1
LOW	0225.8	00.0	0248.1	0040	00.0
IDLE	0213.5	00.0	0112.2	0020	00.0
HI					
LOW					
IDLE					

EPA NO. 71103

APPENDIX D

EPA NO.: 71104 MAKE/MODEL: PONTIAC/GRAND PRIX ENG: 301-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	75	150	85	P	55	70	55	P
DEQ CO (%)	0.6	0.6	0.0	P	0.0	0.5	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				10 Minutes			
HTS HC (ppm)	120	30	120	-	160	30	100	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	200	90	-	70	280	90	-
HTS RPM	770	-	760	-	700	-	770	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	44	30.11	62	49	29.89
HTS	76	34	30.18	72	53	29.84

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	560	(555)	540
DWELL	N/A		N/A
TIMING	+07	(+12)	+08
MECH ADVANCE	20	(27)	19
TOTAL ADVANCE	45	(52)	51
PROPANE IDLE CK	160		120

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Fast Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500

Fast Idle Speed
Ign. Timing @ Idle
Mech. Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Oil Filter
Replaced Engine Oil

PERFORMED BY: Service Station
COST: $9.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	007.22	064.95	2081.4	10.50	08.80		HI	0205.8	00.0	1220.4	0050	00.0
DATE:3-09-79		CS (grams)	003.96	052.33	2017.8	04.19	03.49		LOW	0169.1	00.0	0420.6	0040	00.0
		HT (grams)	002.51	031.37	1692.1	08.51	07.08		IDLE	0138.5	00.0	0265.4	0040	00.0
ODOM:23868		COMP (GPM)	001.13	013.08	0517.0	01.81	01.51	16.4						
	HFET	(GPM)	000.16	001.10	0380.6	02.94		23.17						
RETEST	FTP	CT (grams)	006.89	052.27	2079.7	09.06	07.92		HI	0386.3	00.0	0988.8	0120	00.1
DATE:4-06-79		CS (grams)	002.47	017.02	2139.5	04.63	04.05		LOW	0224.1	00.0	0401.5	0100	00.0
		HT (grams)	002.22	018.49	1791.6	08.45	07.51		IDLE	0585.1	00.2	0119.8	0150	00.3
ODOM:24476		COMP (GPM)	000.89	006.67	0540.7	01.78	01.56	16.0						
	HFET	(GPM)	000.14	000.59	0382.0	02.67		23.13						

EPA NO. 71104

APPENDIX D

EPA NO.: 71105 MAKE/MODEL: FORD/PINTO ENG: 140-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	145	215	185	P	125	140	275	P
DEQ CO (%)	2.4	3.4	0.7	P	1.4	2.2	1.6	F
DEQ RPM	975	-	975	P	900	-	1000	P
DEQ QUEUE TIME	5 Minutes				15 Minutes			
HTS HC (ppm)	190	180	170	-	160	160	120	-
HTS CO (%)	0.3	2.7	0.0	-	0.9	2.6	0.4	-
HTS NOX (ppm)	100	210	90	-	100	260	110	-
HTS RPM	970	-	980	-	900	-	940	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	25	30.10	49	70	30.00
HTS	74	29	30.06	80	29	29.93

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	710	(755)	710
DWELL	N/A		N/A
TIMING	+22	(+20)	+20
MECH ADVANCE	23	(23)	23
TOTAL ADVANCE	48	(47)	43
PROPANE IDLE CK	150		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	STUMBLES, BACKFIRES	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Fast Idle Speed
Spark Plug Firing Volt.

None

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP	CT (grams)	008.00	168.06	1442.4	13.44	11.57		HI	2049.5	01.0	2232.9	0120	01.0
DATE: 3-12-79		CS (grams)	009.73	226.74	1384.2	07.29	06.28		LOW	3246.8	03.0	0689.7	0220	03.2
ODOM: 30670		HT (grams)	007.34	121.64	1399.0	20.68	17.81		IDLE	3156.8	01.7	0102.5	0200	01.8
		COMP (GPM)	002.31	049.11	0373.6	03.31	02.85	19.4						
	HFET	(GPM)	000.74	011.91	0292.0	04.28		28.32						
RETEST	FTP	CT (grams)	007.26	160.39	1436.1	15.28	13.26		HI	0746.0	00.4	1539.0	0080	00.6
DATE: 4-12-79		CS (grams)	008.82	188.13	1432.3	09.27	08.10		LOW	2906.3	02.7	0451.9	0230	02.7
ODOM: 31697		HT (grams)	006.24	093.43	1253.0	13.63	11.99		IDLE	2936.9	02.2	0107.3	0200	02.2
		COMP (GPM)	002.07	041.38	0368.5	03.15	02.75	20.1						
	HFET	(GPM)	000.42	009.25	0285.0	02.07		29.47						

EPA NO. 71105

APPENDIX D

EPA NO.: 71106 MAKE/MODEL: TOYOTA/CELICA ENG: 133-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	55	35	105	P	40	15	65	P
DEQ CO (%)	0.3	0.3	0.1	P	0.2	0.2	0.1	P
DEQ RPM	1100	-	1150	P	1150	-	1200	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	50	20	50	-	30	20	40	-
HTS CO (%)	0.1	0.3	0.1	-	0.2	0.3	0.2	-
HTS NOX (ppm)	80	120	70	-	70	100	80	-
HTS RPM	1020	-	1030	-	1100	-	1080	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	60	30.15	58	54	30.20
HTS	66	57	30.00	71	41	30.12

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	890	(855)	960
DWELL	53	(52)	53
TIMING	+09	(+08)	+09
MECH ADVANCE	23	(22)	21
TOTAL ADVANCE	48	(50)	51
PROPANE IDLE CK	140		100

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Dist. Point Volt. Drop

Idle Speed
Dist. Point Volt. Drop

MAINTENANCE

MAINT PRIOR TO RETEST
Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $6.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.65	099.39	1414.5	05.52	04.83	
	CS (grams)	001.99	040.85	1832.3	03.38	02.96	
DATE:3-16-79	HT (grams)	001.82	039.48	1366.4	05.91	05.17	
ODOM:13152	COMP (GPM)	000.67	014.14	0429.2	01.22	01.06	19.6
	HFET (GPM)	000.08	006.96	0275.8	01.69		30.90
RETEST	FTP CT (grams)	004.92	094.24	1384.6	06.07	05.47	
	CS (grams)	002.73	037.44	1799.0	03.62	03.29	
DATE:5-03-79	HT (grams)	002.84	034.56	1345.3	06.53	05.88	
ODOM:13712	COMP (GPM)	000.86	013.02	0421.5	01.33	01.20	19.9
	HFET (GPM)	000.12	006.47	0265.7	01.81		32.10

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	195.2	00.4	0777.0	0000	00.4
LOW	0109.5	00.4	0192.2	0000	00.3
IDLE	0360.4	00.3	0075.8	0010	00.3
HI	0199.7	00.3	0828.9	0010	00.3
LOW	0181.3	00.3	0229.6	0010	00.3
IDLE	0364.9	00.2	0076.8	0020	00.2

EPA NO.71106

APPENDIX D

EPA NO.: 71107 MAKE/MODEL: TOYOTA/CORONA ENG:134-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	25	20	50	P	15	10	55	P
DEQ CO (%)	0.6	0.2	0.6	P	0.6	0.7	0.6	P
DEQ RPM	1000	-	1000	P	950	-	1000	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	30	20	30	-	20	20	60	-
HTS CO (%)	0.6	0.2	0.5	-	0.8	0.3	0.7	-
HTS NOX (ppm)	50	90	50	-	60	100	60	-
HTS RPM	890	-	930	-	920	-	960	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	61	29.90	60	42	30.20
HTS	74	43	29.84	73	35	30.14

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	820	(855)	720
DWELL	50	(52)	50
TIMING	+07	(+08)	+08
MECH ADVANCE	20	(23)	32
TOTAL ADVANCE	29	(43)	45
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Total Adv. @ 2500

Fast Idle
Idle Speed
Mech. Adv. @ 2500
Dist. Point Volt. Drop

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	007.95	104.25	1594.3	09.13	07.81		HI	0201.3	00.3	1024.5	0030	00.3
DATE: 3-19-79	CS	(grams)	004.40	043.46	1903.2	04.81	04.12		LOW	0635.8	00.3	0277.2	0100	00.2
	HT	(grams)	003.22	039.34	1427.2	08.24	07.05		IDLE	0504.2	00.6	0066.1	0060	00.5
ODOM: 25875	COMP	(GPM)	001.29	014.76	0453.6	01.79	01.53	18.4						
	HFET	(GPM)	000.10	005.56	0289.2	02.16		29.74						
RETEST	FTP CT	(grams)	005.53	096.09	1632.1	08.16	07.44		HI	0176.8	00.4	0738.2	0035	00.4
DATE: 4-23-79	CS	(grams)	003.95	041.76	2013.3	03.69	03.39		LOW	0210.5	00.3	0180.1	0040	00.2
	HT	(grams)	002.88	041.19	1468.1	06.97	06.34		IDLE	0290.0	00.5	0063.6	0040	00.6
ODOM: 26721	COMP	(GPM)	001.06	014.21	0473.6	01.49	01.36	17.8						
	HFET	(GPM)	000.13	005.38	0305.8	02.09		28.19						

EPA NO.71107

APPENDIX D

EPA NO.: 71109 MAKE/MODEL: DODGE/COLT ENG: 98-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	120	160	140	P	120	80	125	P
DEQ CO (%)	3.1	1.3	3.0	P	2.4	2.1	2.4	P
DEQ RPM	1200	-	1200	P	850	-	950	P
DEQ QUEUE TIME	5 Minutes				15 Minutes			
HTS HC (ppm)	80	120	90	-	150	60	150	-
HTS CO (%)	0.9	3.6	1.2	-	1.3	0.7	2.0	-
HTS NOX (ppm)	100	190	110	-	90	220	100	-
HTS RPM	840	-	860	-	810	-	850	-

	°F	RH	BARO	°F	RH	BARO
DEQ	52	64	29.90	56	69	30.20
HTS	71	41	29.84	70	48	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	790	(855)	790
DWELL	54	(52)	51
TIMING	-04	(+05)	+06
MECH ADVANCE	05	(14)	14
TOTAL ADVANCE	14	(37)	26
PROPANE IDLE CK	90		70

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle
Mech. Adv. @ 2500
EGR
Total Adv. @ 2500

Total Adv. @ 2500

MAINTENANCE — MAINT PRIOR TO RETEST

Replaced Spark Plugs
Replaced Points & Condenser
Replaced Air Filter
Adjusted Carburetor
Adjusted Idle Speed
Adjusted Timing & Dwell

PERFORMED BY: Auto Dealer
COST: Unknown

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.19	085.40	1167.1	13.40	11.49	
	CS (grams)	005.99	061.15	1446.9	11.44	09.81	
DATE: 3-20-79	HT (grams)	006.20	044.53	1039.9	12.84	11.01	
ODOM: 24729	COMP (GPM)	001.62	016.43	0338.9	03.27	02.80	24.0
	HFET (GPM)	000.73	003.22	0205.5	03.08		41.67
RETEST	FTP CT (grams)	006.39	091.91	1058.6	14.39	12.15	
	CS (grams)	005.06	065.04	1184.0	10.34	08.73	
DATE: 4-25-79	HT (grams)	005.56	038.10	0976.7	14.88	12.36	
ODOM: 25401	COMP (GPM)	001.46	016.84	0292.8	03.33	02.80	27.4
	HFET (GPM)	000.69	002.60	0212.4	04.02		40.55

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1426.3	00.2	1841.2	0100	00.2
LOW	1839.3	00.5	0976.9	0140	00.6
IDLE	1912.7	02.1	0084.0	0110	02.2
HI	1380.4	00.1	2218.4	0140	00.1
LOW	1521.2	00.3	1218.0	0150	00.4
IDLE	1839.3	02.1	0100.7	0140	02.1

EPA NO.71109

APPENDIX D

EPA NO.: 71110 MAKE/MODEL: DATSUN/B210 ENG: 85-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	80	45	130	P	145	60	155	P
DEQ CO (%)	0.3	0.3	0.3	P	0.1	0.6	0.2	P
DEQ RPM	800	-	800	P	Not Available			
DEQ QUEUE TIME	25 Minutes				20 Minutes			
HTS HC (ppm)	130	60	120	-	170	80	160	-
HTS CO (%)	0.4	0.3	0.2	-	0.2	0.3	0.2	-
HTS NOX (ppm)	60	130	60	-	50	120	50	-
HTS RPM	800	-	800	-	760	-	770	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	38	30.15	66	46	29.95
HTS	76	34	30.10	85	32	29.91

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	690	(700)	670
DWELL	48	(52)	48
TIMING	+09	(+10)	+09
MECH ADVANCE	18	(21)	19
TOTAL ADVANCE	28	(51)	27
PROPANE IDLE CK	40		40

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS:
- Fast Idle Speed
- Dwell
- Total Adv. @ 2500

RETEST PROBLEM AREAS:
- Fast Idle Speed
- Dwell
- Total Adv. @ 2500
- Spark Plug Firing Volt.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.20	048.57	1141.4	09.55	08.05	
	CS (grams)	006.19	030.62	1296.2	05.21	04.39	
DATE: 3-23-79	HT (grams)	005.48	029.76	1030.8	09.19	07.75	
ODOM: 5980	COMP (GPM)	001.54	009.13	0316.6	01.94	01.64	26.4
	HFET (GPM)	000.87	004.19	0220.5	03.58		38.59
RETEST	FTP CT (grams)	005.09	042.23	1176.1	08.61	07.99	
	CS (grams)	006.05	027.52	1267.3	04.61	04.28	
DATE: 4-27-79	HT (grams)	005.61	026.84	1017.0	08.07	07.48	
ODOM: 6383	COMP (GPM)	001.52	008.13	0313.7	01.72	01.60	26.8
	HFET (GPM)	000.84	003.69	0218.1	03.07		39.15

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1716.0	00.2	1737.9	0120	00.1
LOW	1009.1	00.2	0738.2	0080	00.2
IDLE	1156.0	00.2	0080.6	0100	00.2
HI	1478.3	00.1	1452.0	0100	00.1
LOW	0991.9	00.1	0623.6	0060	00.1
IDLE	0860.4	00.1	0064.9	0060	00.1

APPENDIX D

EPA NO.: 71111 MAKE/MODEL: TOYOTA/CELICA ENG: 133-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	45	25	65	P	55	30	75	P
DEQ CO (%)	0.2	0.1	0.2	P	0.1	0.2	0.1	P
DEQ RPM	750	-	800	P	900	-	900	P
DEQ QUEUE TIME	15 Minutes				20 Minutes			
HTS HC (ppm)	70	30	70	-	100	40	80	-
HTS CO (%)	0.3	0.4	0.4	-	0.3	0.4	0.1	-
HTS NOX (ppm)	60	110	60	-	80	120	80	-
HTS RPM	870	-	900	-	800	-	830	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	64	32	30.20		61	62	30.15	
HTS	73	32	30.14		74	50	30.06	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	790	(855)	800
DWELL	53	(52)	51
TIMING	+09	(+08)	+08
MECH ADVANCE	18	(23)	20
TOTAL ADVANCE	45	(43)	49
PROPANE IDLE CK	40		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
Mech. Adv. @ 2500
Dist. Point Volt. Drop
Air Filters - Condition

Mech. Adv. @ 2500
Total Adv. @ 2500
Dist. Point Volt. Drop
Air Filters - Condition

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	005.44	115.27	1459.8	07.28	06.63	
DATE:3-27-79	CS (grams)	003.69	050.60	1844.6	04.05	03.72	
ODOM:27829	HT (grams)	003.36	052.66	1342.2	06.53	05.95	
	COMP (GPM)	001.06	017.36	0431.7	01.45	01.33	19.2
	HFET (GPM)	000.22	008.97	0253.9	01.77		33.00
RETEST	FTP CT (grams)	004.16	090.53	1460.7	07.62	06.96	
DATE:4-28-79	CS (grams)	003.22	043.86	1658.2	03.57	03.32	
ODOM:28750	HT (grams)	002.92	044.25	1274.3	06.41	05.97	
	COMP (GPM)	000.89	014.40	0401.7	01.40	01.30	20.8
	HFET (GPM)	000.18	008.70	0256.5	01.86		32.75

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0250.3	00.5	0820.7	0020	00.4
LOW	0446.1	00.5	0269.9	0040	00.4
IDLE	0678.7	00.3	0083.0	0040	00.3
HI	0354.3	00.4	0813.4	0030	00.4
LOW	0348.2	00.5	0262.6	0040	00.5
IDLE	0847.0	00.2	0080.6	0060	00.2

EPA NO.71111

APPENDIX D

EPA NO.: 71112 MAKE/MODEL: MERCURY/MONARCH ENG: 302-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	15	10	20	P	40	25	45	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				20 Minutes			
HTS HC (ppm)	60	30	30	-	130	30	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.7	0.0	0.0	-
HTS NOX (ppm)	70	240	70	-	80	300	60	-
HTS RPM	700	-	700	-	660	-	720	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	64	31	30.15		56	63	30.12	
HTS	73	35	30.12		66	61	30.06	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	520	(655)	520
DWELL	N/A		N/A
TIMING	000	(+02)	+01
MECH ADVANCE	17	(18)	12
TOTAL ADVANCE	36	(47)	25
PROPANE IDLE CK	20		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Fast Idle Speed
- EGR Plugged
- Total Adv. @ 2500

Idle Speed
Fast Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500
EGR Plugged

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.61	144.20	2290.5	11.58	10.47	
	CS (grams)	001.69	004.36	2727.8	06.65	05.94	
DATE: 3-27-79	HT (grams)	002.48	012.75	2179.5	11.37	10.17	
ODOM: 17432	COMP (GPM)	000.96	009.82	0660.7	02.41	02.17	13.1
	HFET (GPM)	000.26	000.11	0447.4	04.26		19.78
RETEST	FTP CT (grams)	006.60	099.83	2248.5	13.35	11.73	
	CS (grams)	001.68	004.40	2697.3	07.59	06.67	
DATE: 5-02-79	HT (grams)	003.60	011.84	2134.3	13.48	11.84	
ODOM: 18421	COMP (GPM)	000.88	007.21	0650.8	02.80	02.46	13.3
	HFET (GPM)	000.20	000.16	0453.3	03.90		19.52

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0568.5	00.0	1199.2	0050	00.0
LOW	0299.2	00.0	0493.1	0025	00.0
IDLE	0262.5	00.0	0066.1	0020	00.0
HI	0256.4	00.0	1216.2	0020	00.0
LOW	0186.0	00.0	0495.6	0030	00.0
IDLE	0305.3	00.0	0085.5	0040	00.0

EPA NO.71112

APPENDIX D

EPA NO.: 71113 MAKE/MODEL: OLDS/88 ENG: 403-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	60	250	90	P	25	10	10	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	750	-	750	P	675	-	700	P
DEQ QUEUE TIME	15 Minutes				30 Minutes			
HTS HC (ppm)	90	130	60	-	50	70	40	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	190	100	-	60	140	70	-
HTS RPM	750	-	770	-	760	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	47	74	30.00	54	56	29.95
HTS	68	38	29.87	80	35	29.92

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	590	(555)	590
DWELL	N/A		N/A
TIMING	+20	(+22)	+18
MECH ADVANCE	27	(29)	22
TOTAL ADVANCE	47	(53)	46
PROPANE IDLE CK	70		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS:
- Total Adv. @ 2500
- Cyl. Power Dist.
- EGR - Func. Check

Ign. Timing @ Idle
Mech. Adv. @ 2500
EGR - Func. Check
Total Adv. @ 2500

MAINTENANCE

None

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.91	052.95	2270.1	15.58	13.76	
DATE:4-11-79	CS (grams)	001.10	000.97	2381.4	09.99	08.83	
ODOM:38983	HT (grams)	001.80	004.00	1950.7	11.68	10.21	
	COMP (GPM)	000.68	003.47	0595.9	03.11	02.74	14.7
	HFET (GPM)	000.18	000.26	0414.8	02.70		21.33
RETEST	FTP CT (grams)	005.84	034.35	2166.0	11.70	10.01	
DATE:5-09-79	CS (grams)	001.15	000.21	2403.2	08.53	07.29	
ODOM:40090	HT (grams)	001.82	005.46	1950.4	11.15	09.60	
	COMP (GPM)	000.63	002.41	0592.8	02.66	02.28	14.8
	HFET (GPM)	000.16	000.05	0417.9	02.73		21.19

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0254.7	00.0	1082.0	0040	00.0
LOW	0175.2	00.0	0850.4	0035	00.0
IDLE	0098.7	00.0	0196.2	0020	00.0
HI	0268.6	00.0	0866.8	0040	00.0
LOW	0222.7	00.0	0527.1	0040	00.0
IDLE	0118.7	00.0	0209.2	0020	00.0

EPA NO.71113

APPENDIX D

EPA NO.: 71114 MAKE/MODEL: CHEV/MONTE CARLO ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S	
DEQ HC (ppm)	45	40	45	P	25	15	20	P	
DEQ CO (%)	0.0	0.1	0.0	P	0.0	0.0	0.0	P	
DEQ RPM	800	-	800	P	650	-	650	P	Fail-PCV Hose
DEQ QUEUE TIME	10 Minutes				5 Minutes				
HTS HC (ppm)	80	10	60	-	20	10	20	-	
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-	
HTS NOX (ppm)	40	140	60	-	40	120	40	-	
HTS RPM	670	-	710	-	600	-	610	-	

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	53	74	29.85	58	43	30.25
HTS	65	56	29.78	76	28	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	550	(500)	480
DWELL	N/A		N/A
TIMING	+09	(+08)	+08
MECH ADVANCE	22	(22)	19
TOTAL ADVANCE	35	(37)	44
PROPANE IDLE CK	230		750

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: PCV Valve - Bad Hose
Air Filters - Condition

Mech. Adv. @ 2500
Total Adv. @ 2500
PCV Valve - Bad Hose
Air Filters - Condition

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	008.10	042.56	2114.6	09.03	07.91	
DATE: 4-13-79	CS (grams)	000.68	001.63	2179.2	05.58	04.92	
ODOM: 34072	HT (grams)	001.39	004.32	1815.5	07.88	06.91	
	COMP (GPM)	000.66	002.99	0549.8	01.86	01.63	15.9
	HFET (GPM)	000.04	000.04	0386.5	01.29		22.94
RETEST	FTP CT (grams)	006.30	021.94	2025.8	07.74	06.68	
DATE: 5-10-79	CS (grams)	001.45	000.52	2092.3	03.77	03.29	
ODOM: 35265	HT (grams)	001.33	002.81	1708.9	05.34	04.65	
	COMP (GPM)	000.66	001.54	0525.0	01.35	01.17	16.7
	HFET (GPM)	000.08	000.02	0383.6	01.01		23.10

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0097.3	00.0	0413.1	0010	00.0
LOW	0060.5	00.0	0546.5	0010	00.0
IDLE	0082.0	00.0	0119.4	0010	00.0
HI	0132.4	00.0	0301.3	0020	00.0
LOW	0104.8	00.0	0239.2	0020	00.0
IDLE	0260.8	00.0	0045.8	0050	00.0

EPA NO.71114

APPENDIX D

EPA NO.: 71115 MAKE/MODEL: CHEV/MONTE CARLO ENG:350-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	110	25	80	P	135	50	110	P
DEQ CO (%)	0.6	0.0	0.2	P	2.2	0.1	1.7	F
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	20 Minutes				5 Minutes			
HTS HC (ppm)	60	20	50	-	60	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.1	0.0	0.0	-
HTS NOX (ppm)	40	170	60	-	90	140	90	-
HTS RPM	860	-	900	-	868	-	870	-

	°F	RH	BARO	°F	RH	BARO
DEQ	55	59	30.15	58	49	30.40
HTS	70	36	30.09	75	42	30.32

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	610	(500)	610
DWELL	99	(99)	99
TIMING	+06	(+08)	+06
MECH ADVANCE	23	(23)	20
TOTAL ADVANCE	43	(41)	46
PROPANE IDLE CK	70		80

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: OK OK

PROBLEM AREAS: Idle Speed Idle Speed

MAINTENANCE

MAINT PRIOR TO RETEST

Replaced Engine Oil
Replaced Oil Filter

PERFORMED BY: Owner
COST: $6.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.68	187.67	2177.3	08.10	06.94	
	CS (grams)	004.82	085.19	2330.3	04.61	03.95	
DATE:4-17-79	HT (grams)	004.50	018.45	1976.0	07.19	06.06	
ODOM:28572	COMP (GPM)	001.60	023.52	0585.7	01.63	01.39	14.1
	HFET (GPM)	000.05	000.23	0418.4	01.62		21.17
RETEST	FTP CT (grams)	009.25	189.52	2179.1	06.87	06.13	
	CS (grams)	003.95	072.97	2382.5	04.06	03.72	
DATE:5-15-79	HT (grams)	002.65	024.98	1941.7	06.20	05.64	
ODOM:29762	COMP (GPM)	001.26	022.49	0590.2	01.41	01.28	14.1
	HFET (GPM)	000.07	000.48	0432.4	01.65		20.46

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0072.8	00.0	0481.0	0020	00.0
LOW	0072.8	00.0	0260.2	0020	00.0
IDLE	1492.6	01.5	0095.2	0160	01.6
HI	0161.5	00.0	0507.7	0020	00.0
LOW	0134.0	00.0	0248.1	0020	00.0
IDLE	1526.3	01.5	0095.2	0130	01.5

APPENDIX D

EPA NO.: 71116 MAKE/MODEL: TOYOTA/CORONA ENG: 134-2V TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	20	20	40	P	15	15	30	P
DEQ CO (%)	0.7	0.1	0.7	P	0.7	0.1	0.7	P
DEQ RPM	1000	-	1000	P	950	-	950	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	50	20	50	-	30	20	40	-
HTS CO (%)	0.7	0.3	0.8	-	0.8	0.3	0.8	-
HTS NOX (ppm)	40	100	40	-	60	120	60	-
HTS RPM	900	-	950	-	960	-	960	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	56	51	30.15		59	41	30.25	
HTS	65	49	30.10		75	35	30.29	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	810	(855)	780
DWELL	52	(52)	52
TIMING	+15	(+08)	+09
MECH ADVANCE	27	(23)	22
TOTAL ADVANCE	44	(43)	47
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Air Filters - Condition

- Total Adv. @ 2500
- Dist. Point Volt. Drop
- Air Filters - Cond.

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	003.81	123.50	1648.2	09.46	08.08	
DATE 4-17-79	CS (grams)	001.16	046.96	1958.2	05.09	04.37	
ODOM 20974	HT (grams)	001.86	045.43	1480.7	09.59	08.05	
	COMP (GPM)	000.51	016.79	0468.1	01.95	01.66	17.9
	HFET (GPM)	000.10	007.47	0299.5	02.72		28.47
RETEST	FTP CT (grams)	003.77	100.61	1515.4	08.42	07.33	
DATE 5-11-79	CS (grams)	001.21	048.57	1878.6	04.74	04.17	
ODOM 21680	HT (grams)	001.94	045.51	1409.7	08.28	07.29	
	COMP (GPM)	000.53	015.70	0444.5	01.74	01.53	18.8
	HFET (GPM)	000.14	008.66	0267.1	02.42		31.55

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0155.4	00.5	1005.1	0030	00.6
LOW	0082.0	00.5	0235.9	0030	00.3
IDLE	0293.1	00.6	0073.3	0040	00.4
HI	0155.4	00.5	0983.3	0010	00.5
LOW	0088.1	00.4	0257.8	0010	00.3
IDLE	0283.9	00.6	0063.6	0020	00.5

EPA NO. 71116

APPENDIX D

EPA NO.: 71117 MAKE/MODEL: DATSUN/B210 ENG: 134-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	70	75	95	P	70	90	75	P
DEQ CO (%)	0.0	0.2	0.0	P	0.0	0.8	0.0	P
DEQ RPM	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	120	100	120	-	120	70	120	-
HTS CO (%)	0.1	0.6	0.0	-	0.4	0.4	0.1	-
HTS NOX (ppm)	60	230	60	-	70	290	80	-
HTS RPM	960	-	950	-	890	-	890	-

	°F	RH	BARO	°F	RH	BARO
DEQ	60	41	30.20	67	35	30.24
HTS	74	29	30.13	82	33	30.18

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	800	(700)	810
DWELL	N/A		N/A
TIMING	+09	(+10)	+11
MECH ADVANCE	18	(21)	18
TOTAL ADVANCE	47	(51)	50
PROPANE IDLE CK	60		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Idle Speed
Spark Plug Firing Voltage

Idle Speed
Spark Plug Firing Voltage

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	004.81	061.10	1031.0	08.64	07.45	
DATE: 4-21-79	CS (grams)	003.30	015.42	1119.9	04.53	03.87	
ODOM: 30393	HT (grams)	003.38	015.54	0948.6	07.60	06.44	
	COMP (GPM)	000.97	006.74	0280.5	01.68	01.43	30.1
	HFET (GPM)	000.32	000.84	0190.9	01.98		45.89
RETEST	FTP CT (grams)	005.55	059.51	0944.4	07.30	06.54	
DATE: 5-18-79	CS (grams)	003.84	017.11	1131.0	04.92	04.38	
ODOM: 31511	HT (grams)	003.74	017.04	0875.5	06.33	05.63	
	COMP (GPM)	001.11	006.99	0271.5	01.56	01.39	31.0
	HFET (GPM)	000.41	001.03	0188.0	02.00		46.44

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0794.9	00.0	1660.3	0070	00.0
LOW	0608.3	00.0	1218.7	0060	00.0
IDLE	0473.6	00.0	0073.3	0050	00.0
HI	1131.5	00.1	1786.5	0100	00.1
LOW	0788.8	00.1	1097.3	0080	00.1
IDLE	0519.5	00.0	0083.0	0060	00.0

EPA NO. 71117

EPA NO.: 71118 MAKE/MODEL: FORD/THUNDERBIRD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	140	35	90	P	85	50	90	P
DEQ CO (%)	0.3	0.1	0.1	P	0.1	0.7	0.1	P
DEQ RPM	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	15 Minutes				15 Minutes			
HTS HC (ppm)	90	40	60	-	120	30	60	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	170	200	100	-	100	180	110	-
HTS RPM	780	-	760	-	780	-	790	-

	INITIAL °F	INITIAL RH	INITIAL BARO	RETEST °F	RETEST RH	RETEST BARO
DEQ	52	50	30.40	71	44	29.95
HTS	75	30	30.14	86	39	29.90

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	530	(625)	530
DWELL	N/A		N/A
TIMING	+01	(+04)	+01
MECH ADVANCE	12	(15)	11
TOTAL ADVANCE	42	(43)	41
PROPANE IDLE CK	110		130

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- EGR

RETEST:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- EGR
- Air Filters

MAINTENANCE — MAINT PRIOR TO RETEST
- Replaced Engine Oil
- Replaced Oil Filter

PERFORMED BY: Auto Dealer
COST: $20.00

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.81	083.82	2096.6	18.65	15.84	
DATE 4-19-79	CS (grams)	001.38	017.37	2216.4	19.35	16.43	
ODOM 40743	HT (grams)	003.52	015.62	1815.9	17.49	14.75	
	COMP (GPM)	000.84	008.31	0553.7	04.98	04.22	15.6
	HFET (GPM)	000.12	000.61	0413.5	03.04		21.38
RETEST	FTP CT (grams)	012.17	086.21	2002.2	16.99	14.88	
DATE 5-16-79	CS (grams)	001.24	013.49	2174.7	16.62	14.55	
ODOM 42470	HT (grams)	003.34	013.97	1802.5	17.44	15.27	
	COMP (GPM)	001.12	007.80	0541.7	04.52	03.95	15.9
	HFET (GPM)	000.12	000.34	0380.6	02.41		23.25

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0134.0	00.0	0733.4	0080	00.0
LOW	0082.0	00.0	0648.4	0090	00.0
IDLE	0078.9	00.0	0226.2	0080	00.0
HI	0211.9	00.0	0711.9	0020	00.0
LOW	0114.0	00.0	0731.0	0010	00.0
IDLE	0104.8	00.0	0382.4	0010	00.0

APPENDIX D

EPA NO.: 71119 MAKE/MODEL: VOLKSWAGON/RABBIT ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	40	40	60	P	55			
DEQ CO (%)	0.0	0.2	0.3	P	1.4	Not Done - Idle Too High		
DEQ RPM	1300	-	1300	P	2500	-	2500	F
DEQ QUEUE TIME	5 Minutes				15 Minutes			
HTS HC (ppm)	50	30	80	-	50	20	40	-
HTS CO (%)	0.3	0.2	0.3	-	1.0	0.4	1.1	-
HTS NOX (ppm)	100	160	100	-	140	190	130	-
HTS RPM	1170	-	1200	-	1140	-	1140	-

	°F	RH	BARO	°F	RH	BARO
DEQ	51	52	30.20	63	47	30.45
HTS	75	30	30.14	73	42	30.11

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	1090	(925)	1110
DWELL	50	(47)	47
TIMING	-02	(-03)	-02
MECH ADVANCE	23	(24)	32
TOTAL ADVANCE	35	(30)	37
PROPANE IDLE CK	620		360

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS: Idle Speed
Total Adv. @ 2500
Dwell

Idle Speed
Mech. Adv. @ 2500
Total Adv. @ 2500

MAINTENANCE MAINT PRIOR TO RETEST
Replaced Fuel Filter

PERFORMED BY: Friend
COST: Unknown

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.02	035.06	1201.9	12.14	10.17	
DATE:4-19-79	CS (grams)	003.96	015.01	1473.0	07.53	06.31	
ODOM:13579	HT (grams)	003.86	022.63	1093.7	12.12	10.22	
	COMP (GPM)	001.22	005.73	0348.4	02.62	02.20	24.5
	HFET (GPM)	001.00	010.11	0223.5	03.24		36.56
RETEST	FTP CT (grams)	006.13	058.26	1155.0	09.37	08.17	
DATE:5-17-79	CS (grams)	005.04	038.40	1493.7	05.37	04.64	
ODOM:14011	HT (grams)	004.97	037.22	1093.9	09.67	08.43	
	COMP (GPM)	001.40	011.29	0348.5	01.99	01.73	23.9
	HFET (GPM)	001.11	001.83	0224.5	03.17		38.42

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1501.8	00.2	2138.3	0080	00.2
LOW	1284.5	00.1	0616.9	0070	00.1
IDLE	0733.7	00.1	0100.0	0040	00.1
HI	2089.3	00.6	2308.2	0110	00.6
LOW	1841.5	00.3	0747.9	0100	00.4
IDLE	1100.9	00.6	0143.7	0060	00.6

EPA NO. 71119

EPA NO.: 71120 MAKE/MODEL: MERCURY/MONARCH ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	220	260	260	P	310	290	375	F
DEQ CO (%)	0.8	0.0	1.0	P	2.6	0.3	2.7	F
DEQ RPM	950	-	950	P	1000	-	1050	P
DEQ QUEUE TIME	20 Minutes				0 Minutes			
HTS HC (ppm)	50	90	260	-	270	460	350	-
HTS CO (%)	0.0	0.0	0.3	-	0.6	1.2	1.2	-
HTS NOX (ppm)	50	100	110	-	110	240	120	-
HTS RPM	850	-	900	-	890	-	920	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	51	58	30.33		64	43	30.30	
HTS	60	48	30.24		86	28	30.24	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	590	(600)	590	
DWELL	N/A		N/A	
TIMING	+06	(+06)	+05	
MECH ADVANCE	07	(14)	15	
TOTAL ADVANCE	22	(35)	29	
PROPANE IDLE CK	40		50	

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Mech. Adv. @ 2500
Total Adv. @ 2500

Total Adv. @ 2500

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	010.03	118.06	1894.8	09.01	07.61		HI	0366.5	00.0	0570.8	0025	00.0
DATE: 4-20-79	CS (grams)	013.24	158.55	1790.1	05.60	04.72		LOW	2692.1	00.7	0434.9	0225	00.7
	HT (grams)	007.69	066.49	1627.3	06.54	05.57		IDLE	4457.2	02.8	0299.0	0340	02.6
ODOM: 14761	COMP (GPM)	002.93	032.96	0471.0	01.76	01.49	16.7						
	HFET (GPM)	000.66	006.91	0369.1	01.26		23.21						
RETEST	FTP CT (grams)	008.55	115.48	1836.5	07.64	06.82		HI	0215.0	00.0	0454.1	0020	00.0
DATE: 5-18-79	CS (grams)	010.85	116.31	1785.9	05.59	05.02		LOW	2506.2	00.8	0714.3	0200	00.8
	HT (grams)	006.01	045.50	1654.6	05.84	05.31		IDLE	3780.3	02.7	0248.7	0280	02.5
ODOM: 15234	COMP (GPM)	002.39	025.59	0469.2	01.63	01.46	17.2						
	HFET (GPM)	000.44	004.10	0367.3	01.41		23.64						

EPA NO. 71120

APPENDIX D

EPA NO.: 71121 MAKE/MODEL: CADILLAC/SEVILLE ENG: 350-FI TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	45	90	60	P	25	30	30	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	No RPM Readings Available				700	-	700	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	260	110	160	-	80	60	100	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	40	80	50	-	60	130	70	-
HTS RPM	710	-	710	-	710	-	690	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	44	30.25	64	43	30.35
HTS	75	27	30.19	74	36	30.26

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	560	(655)	540
DWELL	N/A		N/A
TIMING	+08	(+10)	+08
MECH ADVANCE	26	(27)	27
TOTAL ADVANCE	50	(51)	51
PROPANE IDLE CK	190		110

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS:	FI	FI
PROBLEM AREAS:	Idle Speed Cyl. Power Dist.	Idle Speed Spk Plg Frng Volt. Cyl. Power Dist. Air Filters

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.83	111.16	2254.0	22.02	19.12	
	CS (grams)	001.69	001.91	2140.1	13.35	11.59	
DATE:4-21-79	HT (grams)	002.01	002.11	1838.9	20.18	17.41	
ODOM:23818	COMP (GPM)	000.77	006.79	0554.3	04.58	03.96	15.6
	HFET (GPM)	000.17	000.04	0413.5	05.38		21.42
RETEST	FTP CT (grams)	006.58	113.81	2136.7	18.46	16.38	
	CS (grams)	001.60	001.38	2121.7	11.94	10.59	
DATE:5-31-79	HT (grams)	000.88	002.45	1745.6	16.35	14.66	
ODOM:24753	COMP (GPM)	000.66	006.89	0538.1	03.89	03.47	16.1
	HFET (GPM)	000.20	000.01	0351.6	03.25		25.17

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0221.1	00.0	1521.2	0140	00.1
LOW	0159.9	00.0	0993.6	0130	00.1
IDLE	0123.2	00.0	0167.6	0120	00.1
HI	141.5	00.0	1175.1	0020	00.0
LOW	0120.1	00.0	0809.8	0020	00.0
IDLE	0092.6	00.0	0186.7	0020	00.0

APPENDIX D

EPA NO.: 71122 MAKE/MODEL: VOLKSWAGON/BEETLE ENG: 97-FI TRANS: MANUAL

	INITIAL				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	105	90	110	P	115	75	120	P
DEQ CO (%)	2.4	0.6	1.6	P	1.9	0.4	1.9	P
DEQ RPM	900	-	900	P	900	-	900	P
DEQ QUEUE TIME	5 Minutes				5 Minutes			
HTS HC (ppm)	220	80	230	-	170	60	120	-
HTS CO (%)	3.4	0.8	3.3	-	2.7	0.5	2.4	-
HTS NOX (ppm)	120	250	120	-	90	450	120	-
HTS RPM	870	-	860	-	820	-	890	-

	°F	RH	BARO	°F	RH	BARO
DEQ	63	55	30.00	67	39	30.15
HTS	73	42	29.94	73	39	30.06

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	740	(875)	820
DWELL	46	(47)	47
TIMING	000	(-05)	000
MECH ADVANCE	25	(10)	29
TOTAL ADVANCE	31	(17)	35
PROPANE IDLE CK	0		0

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	OK	OK
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: FI FI

PROBLEM AREAS:
- Idle Speed
- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Spk Plg Frng Volt.
- Rotor Gap Volt.

- Ign. Timing @ Idle
- Mech. Adv. @ 2500
- Total Adv. @ 2500
- Rotor Gap Volt.
- EGR

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.87	092.66	1097.9	08.25	07.83	
DATE: 5-4-79	CS (grams)	005.21	068.13	1338.7	06.11	05.80	
ODOM: 20004	HT (grams)	003.73	039.97	1046.5	07.70	07.31	
	COMP (GPM)	001.37	017.43	0321.0	01.87	01.78	25.1
	HFET (GPM)	000.62	005.36	0214.8	01.74		39.38
RETEST	FTP CT (grams)	005.70	080.39	1043.3	10.39	08.74	
DATE: 6-13-79	CS (grams)	004.36	062.10	1256.7	07.17	06.03	
ODOM: 22101	HT (grams)	003.36	035.01	0981.7	09.44	08.07	
	COMP (GPM)	001.16	015.55	0302.0	02.27	01.92	26.9
	HFET (GPM)	000.52	003.08	0220.7	02.82		39.04

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0985.8	00.1	1189.4	0050	00.1
LOW	1444.7	00.5	0981.7	0080	00.4
IDLE	2634.6	02.3	0079.2	0130	02.0
HI	1067.3	00.1	1704.0	0080	00.1
LOW	1645.6	00.8	1143.4	0120	00.9
IDLE	1679.3	02.0	0104.9	0100	02.1

EPA NO.71122

APPENDIX D

EPA NO.: 71123 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	65	45	55	P	70	60	80	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	825	-	875	P
DEQ QUEUE TIME	15 Minutes				5 Minutes			
HTS HC (ppm)	80	20	60	-	30	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	60	170	70	-	80	200	90	-
HTS RPM	740	-	740	-	800	-	780	-

	°F	RH	BARO	°F	RH	BARO
DEQ	58	61	30.16	68	34	30.15
HTS	70	58	30.10	73	42	30.20

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(555)	670
DWELL	N/A		N/A
TIMING	+07	(+08)	+06
MECH ADVANCE	19	(20)	21
TOTAL ADVANCE	59	(44)	41
PROPANE IDLE CK	230		190

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK
IDLE LIMITER CAPS:	OK	OK

PROBLEM AREAS: Total Adv. @ 2500
Cyl. Power Dist.

Idle Speed
Ign. Timing @ Idle

MAINTENANCE

MAINT PRIOR TO RETEST

None

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL: No Major Problems
OWNER SATISFIED WITH VEH: Yes

APPENDIX D

	FTP & HFET RESULTS							FED THREE-MODE TEST RESULTS					
	TEST		HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT	(grams)	012.65	192.43	1778.4	11.64	09.74		HI	0245.5	00.0	0781.1	0060	00.0
DATE:4-25-79	CS	(grams)	000.95	005.23	1863.1	06.62	05.54		LOW	0178.3	00.0	0244.0	0060	00.0
ODOM:16313	HT	(grams)	002.59	018.11	1582.8	08.53	07.07		IDLE	0169.1	00.0	0091.2	0060	00.0
	COMP	(GPM)	001.05	013.11	0470.6	02.20	01.83	17.9						
	HFET	(GPM)	000.08	000.67	0348.0	02.29		25.39						
RETEST	FTP CT	(grams)	011.58	173.83	1731.7	11.04	10.17		HI	0089.5	00.0	0637.9	0000	00.0
DATE:5-22-79	CS	(grams)	000.94	006.26	1823.3	05.54	05.16		LOW	0092.6	00.0	0277.4	0000	00.0
ODOM:16865	HT	(grams)	002.17	015.73	1558.3	07.16	06.68		IDLE	0040.6	00.0	0224.9	0000	00.0
	COMP	(GPM)	000.95	012.00	0460.8	01.92	01.78	18.4						
	HFET	(GPM)	000.08	000.70	0334.1	02.03		26.43						

APPENDIX D

EPA NO.: 72101 MAKE/MODEL: DODGE/COLT ENG: 98-2V TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	175	115	190	P	110	100	125	P	105	60	110	P
DEQ CO (%)	5.9	1.5	6.4	F	2.1	1.2	2.5	P	2.4	0.8	2.3	P
DEQ RPM	800	-	800	P	775	-	775	P	900	-	900	P
DEQ QUEUE TIME	40 Minutes				40 Minutes				5 Minutes			
HTS HC (ppm)	210	90	200	-	160	50	120	-	140	210	120	-
HTS CO (%)	5.4	0.7	5.7	-	1.7	0.4	1.9	-	1.5	1.9	1.1	-
HTS NOX (ppm)	100	200	100	-	90	250	90	-	80	200	80	-
HTS RPM	740	-	790	-	730	-	760	-	760	-	780	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	54	47	30.15		52	62	30.10		58	48	30.10	
HTS	74	39	30.28		59	62	29.99		71	37	30.02	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	780	(855)	670		660
DWELL	57	(52)	56		58
TIMING	+04	(+05)	+04		+02
MECH ADVANCE	13	(14)	17		12
TOTAL ADVANCE	20	(37)	22		21
PROPANE IDLE CK	0		10		0
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		STUMBLES		OK
IDLE LIMITER CAPS:	MISSING		MISSING		MISSING
PROBLEM AREAS:	Total Adv. @ 2500 Dwell		Idle Speed EGR Mech. Adv. @ 2500 Total Adv. @ 2500 Dwell		Idle Speed Ign. Timing @ Idle Total Adv. @ 2500 Dwell Cyl. Power Dist.

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	Replaced Engine Oil
PERFORMED BY:	Auto Dealer	Service Station
COST:	No Charge	$15.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	006.34	095.71	1151.6	17.88	14.75	
DATE: 3-09-79	CS (grams)	004.08	089.12	1344.0	08.35	06.84	
ODOM: 19826	HT (grams)	003.90	046.21	1117.2	16.92	13.87	
	COMP (GPM)	001.20	020.88	0330.1	03.42	02.81	24.2
	HFET (GPM)	000.63	003.56	0240.6	05.60		35.72
MAINT RETEST	FTP CT (grams)	006.56	094.62	1233.9	18.56	15.41	
DATE: 3-20-79	CS (grams)	004.04	073.44	1405.5	07.97	06.62	
ODOM: 19900	HT (grams)	003.95	046.26	1122.6	15.17	12.48	
	COMP (GPM)	001.22	018.73	0343.5	03.28	02.71	23.5
	HFET (GPM)	000.68	004.03	0253.8	05.85		33.80
RETEST	FTP CT (grams)	006.29	088.13	1228.6	16.44	14.70	
DATE: 4-24-79	CS (grams)	003.09	056.59	1428.5	07.29	06.52	
ODOM: 20789	HT (grams)	004.43	039.50	1128.0	14.15	12.65	
	COMP (GPM)	001.11	015.60	0346.6	02.99	02.67	23.7
	HFET (GPM)	000.61	003.29	0242.7	04.98		35.50

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1376.3	00.2	2436.8	0090	00.2
LOW	1440.6	00.4	1264.8	0105	00.4
IDLE	2012.8	04.4	0066.1	0110	04.4
HI	1575.2	00.3	2436.8	0100	00.3
LOW	1462.0	00.4	1182.3	0100	00.4
IDLE	1768.0	02.7	0124.3	0100	02.6
HI	1403.9	00.2	2436.8	0100	00.2
LOW	1217.2	00.2	1126.4	0080	00.2
IDLE	1370.2	02.0	0085.5	0090	02.0

EPA NO. 72101

EPA NO.: 72102 MAKE/MODEL: OLDS/CUTLASS ENG: 350-4V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	365	115	410	F								
DEQ CO (%)	2.6	0.2	2.7	F								
DEQ RPM	800	-	885	P	No Retest - Vehicle Dropped from Program							
DEQ QUEUE TIME	25 Minutes											
HTS HC (ppm)	560	140	480	-								
HTS CO (%)	1.2	0.1	0.7	-								
HTS NOX (ppm)	90	200	90	-								
HTS RPM	770	-	780	-								
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	60	42	30.15									
HTS	68	53	30.26									

DIAGNOSTIC CHECKS		(SPECS)
IDLE SPEED	540	(500)
DWELL	N/A	
TIMING	+18	(+20)
MECH ADVANCE	26	(29)
TOTAL ADVANCE	50	(53)
PROPANE IDLE CK	60	

DRIVEABILITY	
ENG STARTING	GOOD
TRANSMISSION	OK
CLUTCH	N/A
BRAKES	OK
OVERALL PERF	STUMBLES

IDLE LIMITER CAPS: OK

PROBLEM AREAS: None

MAINTENANCE

MAINT TO PASS DEQ

MAINT PRIOR TO RETEST

PERFORMED BY:
COST:

OWNER'S DRIVEABILITY EVAL:
OWNER SATISFIED WITH VEH:

APPENDIX D

		FTP & HFET RESULTS						FED THREE-MODE TEST RESULTS					
	TEST	HC	CO	CO_2	NOX	NOXC	MPG	TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	007.97	093.10	2172.0	12.12	09.93		HI	0287.0	00.0	1060.9	0040	00.0
DATE: 3-09-79	CS (grams)	006.38	102.75	2231.2	07.81	06.40		LOW	0366.5	00.0	0697.0	0050	00.0
	HT (grams)	005.18	044.94	1915.0	10.76	08.82		IDLE	4117.1	03.3	0131.6	0320	03.3
ODOM: 25974	COMP (GPM)	001.70	022.45	0567.6	02.55	02.09	14.6						
	HFET (GPM)	000.19	000.99	0397.0	02.48		22.22						
MAINT RETEST	FTP CT (grams)							HI					
DATE:	CS (grams)							LOW					
	HT (grams)							IDLE					
ODOM:	COMP (GPM)												
	HFET (GPM)												
RETEST	FTP CT (grams)							HI					
DATE:	CS (grams)							LOW					
	HT (grams)							IDLE					
ODOM:	COMP (GPM)												
	HFET (GPM)												

EPA NO. 72102

APPENDIX D

EPA NO.: 72103 MAKE/MODEL: OLDS/CUTLASS ENG: 231-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	90	50	145	P	75	0	85	P	70	25	70	P
DEQ CO (%)	1.1	0.2	2.3	F	0.0	0.0	0.0	P	0.8	0.0	0.8	P
DEQ RPM	700	-	700	P	650	-	650	P	800	-	800	P
DEQ QUEUE TIME	5 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	150	60	200	-	80	20	100	-	100	10	100	-
HTS CO (%)	0.7	0.2	2.1	-	0.2	0.0	0.4	-	1.0	0.0	0.4	-
HTS NOX (ppm)	80	130	100	-	50	440	50	-	100	460	80	-
HTS RPM	670	-	710	-	640	-	660	-	730	-	680	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	25	30.10		60	35	30.35		60	72	30.15	
HTS	77	26	30.04		73	35	30.26		75	51	30.07	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	610	(600)	530		550
DWELL	N/A		N/A		N/A
TIMING	+10	(+12)	+12		+13
MECH ADVANCE	18	(23)	19		21
TOTAL ADVANCE	42	(47)	40		46
PROPANE IDLE CK	60		60		50
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	N/A		N/A		N/A
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	OK		OK		OK
PROBLEM AREAS:	Total Adv. @ 2500 Cyl. Power Dist. Mech. Adv. @ 2500		Total Adv. @ 2500 Idle Speed Mech. Adv. @ 2500		EGR - Func. Check

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	None	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	019.15	202.93	1712.3	08.41	07.37	
DATE: 3-12-79	CS (grams)	003.36	067.82	1881.3	02.63	02.30	
	HT (grams)	003.57	064.65	1551.5	06.59	05.75	
ODOM: 18974	COMP (GPM)	001.82	025.59	0466.9	01.33	01.17	17.3
	HFET (GPM)	000.24	006.21	0349.5	01.93		24.63
MAINT RETEST	FTP CT (grams)	014.82	220.88	1755.9	09.57	08.54	
DATE: 3-26-79	CS (grams)	006.09	157.60	2128.5	05.93	05.29	
	HT (grams)	003.83	073.21	1594.3	07.83	06.98	
ODOM: 19240	COMP (GPM)	001.95	039.24	0505.6	01.93	01.73	15.5
	HFET (GPM)	000.24	005.82	0376.0	02.31		22.98
RETEST	FTP CT (grams)	011.23	195.58	1700.5	22.79	20.41	
DATE: 4-30-79	CS (grams)	003.90	061.90	1898.4	17.97	16.09	
	HT (grams)	002.67	037.42	1605.0	24.72	22.14	
ODOM: 20171	COMP (GPM)	001.37	022.31	0472.6	05.58	05.00	17.3
	HFET (GPM)	000.17	002.22	0349.8	07.03		25.07

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0175.2	00.0	0731.0	0090	00.0
LOW	0141.5	00.0	0122.2	0090	00.0
IDLE	1059.2	00.9	0038.6	0160	01.1
HI	0300.6	00.0	0869.5	0030	00.0
LOW	0236.4	00.0	0184.3	0030	00.0
IDLE	1943.3	01.0	0067.3	0120	01.1
HI	0299.2	00.0	2436.8	0030	00.0
LOW	0219.7	00.0	2436.8	0030	00.0
IDLE	1777.2	01.1	0124.3	0120	01.2

EPA NO. 72103

APPENDIX D

EPA NO.: 72104 MAKE/MODEL: VOLKSWAGON/DASHER ENG: 97-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	140	90	150	P	85	75	85	P	85	50	95	P
DEQ CO (%)	4.5	1.3	4.6	F	1.5	0.7	1.5	P	1.2	0.4	1.3	P
DEQ RPM	825	-	850	P	900	-	900	P	1050	-	1050	P
DEQ QUEUE TIME	5 Minutes				5 Minutes				10 Minutes			
HTS HC (ppm)	120	80	100	-	100	30	50	-	100	40	80	-
HTS CO (%)	2.8	1.0	3.4	-	0.7	0.2	0.1	-	0.9	0.2	0.9	-
HTS NOX (ppm)	90	220	100	-	110	250	110	-	100	180	120	-
HTS RPM	900	-	870	-	820	-	810	-	840	-	840	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	63	29	30.20	63	40	30.25	62	66	30.25
HTS	70	33	30.14	65	48	30.22	75	47	30.18

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	860	(925)	800		830
DWELL	52	(47)	51		51
TIMING	-03	(-03)	-03		-01
MECH ADVANCE	23	(25)	22		20
TOTAL ADVANCE	29	(31)	30		34
PROPANE IDLE CK	30		190		170
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		OK
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	FI		FI		FI
PROBLEM AREAS:	Dwell EGR Vacuum Hoses		Idle Speed Vacuum Hoses EGR Dwell		Ign. Timing @ Idle Mech. Adv. @ 2500 Dwell EGR Vacuum Hoses

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	Rough Idle
OWNER SATISFIED WITH VEH:	Most of the Time	Yes

APPENDIX D

	TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP	CT (grams)	006.30	081.17	1098.3	12.54	10.28	
DATE: 3-09-79		CS (grams)	006.57	101.31	1284.2	09.03	07.30	
		HT (grams)	004.99	052.69	0986.1	13.16	10.64	
ODOM: 28978		COMP (GPM)	001.62	022.17	0309.1	02.92	02.37	25.4
	HFET	(GPM)	000.99	006.59	0211.9	03.46		39.34
MAINT RETEST	FTP	CT (grams)	008.20	058.21	1208.3	11.88	10.47	
DATE: 3-27-79		CS (grams)	006.91	028.84	1493.8	08.90	07.90	
		HT (grams)	005.36	017.83	1098.3	12.57	10.96	
ODOM: 29253		COMP (GPM)	001.80	008.54	0351.9	02.82	02.49	23.9
	HFET	(GPM)	000.84	002.73	0224.2	03.26		38.37
RETEST	FTP	CT (grams)	006.25	055.59	1190.3	12.10	10.64	
DATE: 5-01-79		CS (grams)	005.59	019.28	1428.8	08.00	07.04	
		HT (grams)	004.15	012.51	1076.5	12.15	10.75	
ODOM: 29911		COMP (GPM)	001.42	006.71	0340.6	02.68	02.37	24.9
	HFET	(GPM)	000.61	001.97	0224.0	03.32		38.72

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2288.2	00.5	2332.4	0110	00.5
LOW	2679.9	00.7	1303.6	0160	00.7
IDLE	2992.0	04.3	0114.6	0150	04.4
HI	1615.0	00.2	2165.0	0060	00.2
LOW	2165.8	00.2	1065.8	0120	00.1
IDLE	2487.1	00.9	0117.0	0160	00.8
HI	1165.2	00.2	2004.8	0070	00.2
LOW	1428.4	00.1	0956.6	0090	00.1
IDLE	2406.5	00.3	0112.2	0290	00.4

EPA NO. 72104

APPENDIX D

EPA NO.: 72105 MAKE/MODEL: BUICK/ELECTRA ENG: 403-4V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	200	95	235	P	80	85	45	P	10	20	15	P
DEQ CO (%)	4.1	0.3	4.2	F	0.7	1.2	0.0	P	0.0	0.0	0.0	P
DEQ RPM	825	-	825	P	700	-	700	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				20 Minutes				5 Minutes			
HTS HC (ppm)	190	50	160	-	60	40	40	-	50	30	30	P
HTS CO (%)	1.7	0.0	2.2	-	0.1	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	160	120	-	50	150	80	-	60	140	80	-
HTS RPM	750	-	770	-	690	-	660	-	630	-	660	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	62	30	30.20	64	26	30.25	61	68	30.15
HTS	72	34	30.13	80	26	30.20	71	56	30.07

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	580	(555)	540		530
DWELL	N/A		N/A		N/A
TIMING	+16	(+20)	+15		+16
MECH ADVANCE	23	(27)	22		23
TOTAL ADVANCE	48	(51)	47		48
PROPANE IDLE CK	0		110		100

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING MISSING MISSING

PROBLEM AREAS: Ign. Timing @ Idle; Mech. Adv. @ 2500 | Ign. Timing @ Idle; Mech. Adv. @ 2500 | Ign. Timing @ Idle; Mech. Adv. @ 2500

MAINT TO PASS DEQ

Replaced Spark Plugs
Replaced Engine Oil
Replaced Dist. Cap & Rotor
Replaced Spark Timing Device
Replaced Plug Wires
Replaced Air Filter
Adjusted Carburetor
Adjusted Idle Speed
Adjusted Timing
Adjusted PCV Valve

PERFORMED BY: Auto Dealer
COST: $300.00

MAINT PRIOR TO RETEST: None

OWNER'S DRIVEABILITY EVAL: No Major Problems | No Major Problems
OWNER SATISFIED WITH VEH: Yes | Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.76	123.30	2105.3	10.46	08.71	
DATE: 3-09-79	CS (grams)	008.77	202.09	2047.9	06.20	05.16	
ODOM: 21469	HT (grams)	005.26	090.19	1805.2	08.70	07.29	
	COMP (GPM)	002.13	040.87	0531.0	02.09	01.74	14.7
	HFET (GPM)	000.27	011.55	0423.8	02.33		20.03
MAINT RETEST	FTP CT (grams)	006.95	073.12	2250.3	06.79	06.10	
DATE: 3-26-79	CS (grams)	006.79	105.48	2500.0	03.59	03.23	
ODOM: 21788	HT (grams)	004.05	038.37	2042.4	05.93	05.30	
	COMP (GPM)	001.61	021.17	0617.6	01.32	01.18	13.5
	HFET (GPM)	000.15	000.74	0430.3	01.59		20.53
RETEST	FTP CT (grams)	005.70	057.35	2281.4	07.55	06.94	
DATE: 4-28-79	CS (grams)	001.09	006.86	2516.2	04.83	04.44	
ODOM: 22770	HT (grams)	002.07	022.86	2019.8	06.56	05.98	
	COMP (GPM)	000.63	005.94	0619.8	01.58	01.44	14.1
	HFET (GPM)	000.11	000.43	0424.7	01.66		20.83

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0221.1	00.0	0695.2	0060	00.0
LOW	0364.9	00.0	0580.6	0060	00.0
IDLE	3460.2	04.2	0088.8	0240	04.2
HI	0308.4	00.0	0546.5	0040	00.0
LOW	0235.0	00.0	0393.6	0040	00.0
IDLE	0167.6	00.0	0100.0	0020	00.0
HI	0326.8	00.0	0616.9	0030	00.0
LOW	0195.2	00.0	0490.7	0030	00.0
IDLE	0112.6	00.0	0112.2	0020	00.0

APPENDIX D

EPA NO.: 72106 MAKE/MODEL: FORD/T-BIRD ENG: 400-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	275	155	285	F	10	25	25	P	10	30	15	P
DEQ CO (%)	3.3	0.7	3.2	F	0.0	0.6	0.0	P	0.0	0.0	0.0	P
DEQ RPM	900	-	900	*	1000	-	1000	P	900	-	900	P
DEQ QUEUE TIME	15 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	380	200	230	-	180	40	30	-	60	20	30	-
HTS CO (%)	3.5	1.9	0.9	-	1.1	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	110	200	90	-	80	140	100	-	90	100	100	-
HTS RPM	890	-	910	-	890	-	950	-	910	-	890	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	52	30.10		54	45	29.85		58	54	30.20	
HTS	71	48	30.04		75	31	29.80		72	38	30.14	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	590	(600)	610	630	
DWELL	N/A		N/A	N/A	
TIMING	+08	(+08)	+08	000	
MECH ADVANCE	22	(23)	21	13	
TOTAL ADVANCE	51	(51)	51	47	
PROPANE IDLE CK	80		30	110	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	N/A		N/A	N/A	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	OK		MISSING	MISSING	
PROBLEM AREAS:	Air Pump Belt Missing		None	Ign. Timing @ Idle Mech. Adv. @ 2500	

* Emission Control Equipment Disconnected

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Replaced Oil Filter
	Adjusted Choke & Idle Speed	
	Adjusted Timing	
	Replaced Air Pump Belt	
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$43.00	$27.00
OWNER'S DRIVEABILITY EVAL:	Hard Starting	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.62	176.21	2407.7	07.87	07.06	
DATE: 3-15-79	CS (grams)	008.28	133.57	2511.2	05.17	04.61	
ODOM: 11018	HT (grams)	004.80	057.10	2145.2	09.00	08.02	
	COMP (GPM)	002.08	032.25	0635.9	01.82	01.63	12.8
	HFET (GPM)	000.16	001.16	0489.3	02.38		18.04
MAINT RETEST	FTP CT (grams)	001.82	024.34	2996.4	06.29	05.21	
DATE: 3-22-79	CS (grams)	000.84	000.12	2906.7	06.78	05.62	
ODOM: 11136	HT (grams)	001.07	015.37	2439.4	07.57	06.31	
	COMP (GPM)	000.30	002.58	0744.7	01.84	01.53	11.8
	HFET (GPM)	000.08	000.08	0539.1	01.73		16.44
RETEST	FTP CT (grams)	002.59	026.35	2699.1	04.53	04.07	
DATE: 5-03-79	CS (grams)	000.88	000.25	2876.2	05.12	04.61	
ODOM: 11904	HT (grams)	002.59	017.64	2395.1	05.80	05.14	
	COMP (GPM)	000.46	002.88	0720.3	01.38	01.24	12.2
	HFET (GPM)	000.08	000.09	0511.5	01.39		17.32

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0265.6	00.0	0728.5	0040	00.0
LOW	0170.7	00.1	0248.1	0040	00.2
IDLE	4217.1	01.8	0063.6	0160	02.2
HI	0103.4	00.0	0333.0	0020	00.0
LOW	0112.6	00.0	0192.2	0020	00.0
IDLE	0118.7	00.0	0134.0	0020	00.0
HI	0088.1	00.0	0306.3	0010	00.0
LOW	0103.4	00.0	0177.7	0020	00.0
IDLE	0109.5	00.0	0308.7	0020	00.0

EPA NO. 72106

APPENDIX D

EPA NO.: 72107 MAKE/MODEL: CHEV/CAPRICE ENG: 305-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	185	60	180	P	45	25	50	P	340	100	365	F
DEQ CO (%)	3.2	0.1	2.9	F	0.0	0.0	0.0	P	6.1	0.3	5.9	F
DEQ RPM	1000	-	1000	P	850	-	850	P	850	-	850	P
DEQ QUEUE TIME	5 Minutes				35 Minutes				15 Minutes			
HTS HC (ppm)	190	20	170	-	40	20	30	-	480	90	420	-
HTS CO (%)	1.7	0.0	1.9	-	0.0	0.0	0.0	-	6.3	0.0	6.4	-
HTS NOX (ppm)	120	300	110	-	90	280	100	-	120	320	130	-
HTS RPM	890	-	930	-	780	-	810	-	790	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	63	29.90		51	73	29.50		58	58	30.10	
HTS	68	50	29.84		75	44	29.42		66	57	30.05	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	620	(500)	590		530
DWELL	N/A		N/A		N/A
TIMING	+07	(+08)	+08		+08
MECH ADVANCE	22	(22)	20		21
TOTAL ADVANCE	36	(37)	36		36
PROPANE IDLE CK	20		100		0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING MISSING MISSING

PROBLEM AREAS:
- Idle Speed
- EGR - Func. Check

Idle Speed
Mech. Adv. @ 2500
EGR - Func. Check
Air Filter

EGR - Func. Check
Air Filter

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Engine Oil Replaced Oil Filter Adjusted Carburetor Adjusted Idle Speed	Repaired Carburetor
PERFORMED BY:	Auto Dealer	Auto Dealer
COST:	$25.00	$43.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

EPA NO.: 72107 MAKE/MODEL : CHEV/CAPRICE ENG: 305-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	35	30	35	P	25	30	25	P
DEQ CO (%)	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	800	-	800	P	750	-	750	P
DEQ QUEUE TIME	8 Minutes				5 Minutes			
HTS HC (ppm)	90	20	50	-	60	20	30	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	290	110	-	80	290	100	-
HTS RPM	670	-	720	-	730	-	760	-

	°F	RH	BARO	°F	RH	BARO
DEQ	62	57	30.00	76	26	30.15
HTS	71	48	29.96	87	30	30.10

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	540	(500)	550
DWELL	N/A		N/A
TIMING	+08	(+08)	+09
MECH ADVANCE	21	(22)	21
TOTAL ADVANCE	37	(37)	35
PROPANE IDLE CK	120		90

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	OK
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: EGR Hose Func. Check EGR - Func. Check

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Replaced Air Filter	None
	Adjusted Carburetor	
	Adjusted Idle Speed	
PERFORMED BY:	HTS	
COST:	$6.00	
MANHOURS:	1 Hour	
OWNER'S DRIVEABILITY EVAL:	N/A	No Major Problems
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	017.21	167.25	1964.5	14.41	12.49	
DATE: 3-19-79	CS (grams)	007.08	155.56	2076.7	08.54	07.35	
ODOM: 10275	HT (grams)	007.18	056.98	1746.0	14.88	12.95	
	COMP (GPM)	002.48	034.66	0522.2	03.10	02.68	15.2
	HFET (GPM)	000.09	000.88	0389.6	03.64		22.66
MAINT RETEST	FTP CT (grams)	006.29	090.68	1945.7	14.87	12.80	
DATE: 3-28-79	CS (grams)	000.94	010.74	2202.0	10.22	08.66	
ODOM: 10912	HT (grams)	001.10	012.90	1785.0	14.73	12.56	
	COMP (GPM)	000.57	007.61	0540.8	03.33	02.84	16.0
	HFET (GPM)	000.05	000.13	0377.5	04.05		23.47
RETEST	FTP CT (grams)	011.98	147.98	1874.5	15.57	13.54	
DATE: 5-02-79	CS (grams)	011.79	281.51	1912.3	08.01	06.97	
ODOM: 11875	HT (grams)	006.40	114.53	1668.7	15.31	13.23	
	COMP (GPM)	002.75	054.72	0489.3	03.13	02.71	15.2
	HFET (GPM)	000.16	003.12	0376.2	03.83		23.24
HTS MAINT RETEST	FTP CT (grams)	005.49	049.52	1947.7	15.30	14.61	
DATE: 5-03-79	CS (grams)	000.52	000.56	2135.4	09.78	09.27	
ODOM: 11907	HT (grams)	000.99	007.02	1737.3	14.80	14.03	
	COMP (GPM)	000.46	003.45	0528.4	03.31	03.14	16.6
	HFET (GPM)	000.05	000.04	0389.8	03.87		22.74
RETEST	FTP CT (grams)	007.48	067.81	1871.1	12.35	12.25	
DATE: 5-31-79	CS (grams)	000.51	001.74	2129.5	09.46	09.38	
ODOM: 12313	HT (grams)	000.89	004.41	1742.5	13.75	13.74	
	COMP (GPM)	000.56	004.46	0523.6	03.01	03.00	16.7
	HFET (GPM)	000.04	000.02	0359.4	03.27		24.66

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0332.9	00.0	1434.6	0040	00.0
LOW	0216.6	00.0	0828.0	0030	00.0
IDLE	2878.8	03.1	0141.3	0230	03.0
HI	0158.5	00.0	1548.7	0010	00.0
LOW	0091.1	00.0	0794.0	0010	00.0
IDLE	0103.4	00.0	0282.0	0010	00.0
HI	0397.1	00.0	1551.1	0040	00.0
LOW	0443.0	00.1	0721.2	0040	00.0
IDLE	5517.6	07.3	0058.8	0400	07.4
HI	0111.0	00.0	1437.7	0010	00.0
LOW	0065.1	00.0	0666.5	0010	00.0
IDLE	0058.9	00.0	0232.0	0000	00.0
HI	0149.3	00.0	1301.2	0010	00.0
LOW	0078.9	00.0	0675.1	0010	00.0
IDLE	0057.5	00.0	0269.9	0000	00.0

APPENDIX D

EPA NO.: 72108 MAKE/MODEL: VOLVO/242 ENG: 130-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	200	115	315	P	120	60	125	P	100	50	120	P
DEQ CO (%)	6.9	3.3	6.7	F	2.0	0.7	1.8	P	2.4	1.1	2.4	P
DEQ RPM	800	-	800	P	900	-	900	P	950	-	950	P
DEQ QUEUE TIME	10 Minutes				40 Minutes				5 Minutes			
HTS HC (ppm)	130	10	120	-	180	50	140	-	180	50	120	-
HTS CO (%)	4.2	2.4	4.1	-	1.4	0.8	1.4	-	1.7	1.3	1.8	-
HTS NOX (ppm)	120	180	120	-	80	200	90	-	60	180	35	-
HTS RPM	830	-	870	-	880	-	910	-	890	-	910	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	61	29.90		50	69	30.05		56	53	30.00	
HTS	64	54	29.84		74	33	30.05		76	31	29.93	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	810	(900)	850	880	
DWELL	N/A		N/A	N/A	
TIMING	+12	(+15)	+12	+19	
MECH ADVANCE	27	(34)	27	40	
TOTAL ADVANCE	35	(34)	36	35	
PROPANE IDLE CK	0		140	90	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	STUMBLES		STUMBLES	OK	
IDLE LIMITER CAPS:	N/A		N/A	N/A	
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 EGR		Ign. Timing @ Idle Mech. Adv. @ 2500 Spk Plg Frng Volt.	Ign. Timing @ Idle Mech. Adv. @ 2500 Spk Plg Frng Volt.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Fuel Injection Adjusted Idle Speed Replaced Air Filter	None
PERFORMED BY:	Auto Dealer	
COST:	$29.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
	FTP & HFET RESULTS						
INITIAL	FTP CT (grams)	010.07	186.47	1514.7	11.56	09.48	
DATE: 3-20-79	CS (grams)	010.16	301.28	1684.3	06.32	05.24	
	HT (grams)	007.43	167.42	1345.6	10.68	08.73	
ODOM: 37888	COMP (GPM)	002.50	063.58	0413.7	02.32	01.91	17.0
	HFET (GPM)	001.22	022.80	0280.6	02.63		27.69
MAINT RETEST	FTP CT (grams)	005.19	086.07	1830.6	19.82	17.09	
DATE: 3-30-79	CS (grams)	003.93	083.72	2199.9	11.00	09.49	
	HT (grams)	003.55	052.01	1547.9	16.00	13.70	
ODOM: 38433	COMP (GPM)	001.09	020.05	0515.9	03.82	03.29	16.1
	HFET (GPM)	000.36	003.46	0305.9	03.76		28.38
RETEST	FTP CT (grams)	004.98	074.80	1554.1	10.66	09.08	
DATE: 5-09-79	CS (grams)	003.19	060.57	1939.8	06.72	05.76	
	HT (grams)	003.29	038.57	1434.1	10.46	08.91	
ODOM: 40794	COMP (GPM)	000.96	015.30	0456.7	02.30	01.97	18.3
	HFET (GPM)	000.28	002.00	0297.0	02.87		29.46

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
FED THREE-MODE TEST RESULTS					
HI	2003.6	01.7	1313.3	0120	01.8
LOW	2269.9	02.6	0517.4	0120	02.6
IDLE	4287.2	05.2	0066.1	0200	05.0
HI	1044.0	00.4	1781.5	0040	00.3
LOW	1083.7	00.5	0671.3	0050	00.5
IDLE	1319.3	00.8	0064.9	0060	00.9
HI	1253.9	00.4	1272.0	0070	00.5
LOW	1116.2	00.4	0621.7	0060	00.4
IDLE	1660.9	00.9	0080.6	0110	00.9

EPA NO. 72108

APPENDIX D

EPA NO.: 72109 MAKE/MODEL: PONTIAC/CATALINA ENG: 301-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	455	90	605	F	25	15	30	P	35	15	25	P
DEQ CO (%)	4.7	0.2	4.3	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	750	-	750	P	900	-	900	P	600	-	600	P
DEQ QUEUE TIME	5 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	450	80	430	-	30	20	20	-	30	20	20	-
HTS CO (%)	3.3	0.0	3.9	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	200	130	-	80	190	100	-	50	140	70	-
HTS RPM	730	-	750	-	640	-	620	-	560	-	600	-

	°F	RH	BARO	°F	RH	BARO	°F	RH	BARO
DEQ	60	44	30.25	58	44	30.20	56	63	29.70
HTS	73	32	30.15	69	43	30.13	68	50	29.62

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	520	(555)	570		440
DWELL	N/A		N/A		N/A
TIMING	+11	(+12)	+11		+10
MECH ADVANCE	25	(27)	25		26
TOTAL ADVANCE	50	(52)	49		49
PROPANE IDLE CK	0		100		120

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS:	OK	MISSING	MISSING
PROBLEM AREAS:	Fast Idle Speed Air Filters - Condition	Fast Idle Speed	Idle Speed Fast Idle Speed

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$27.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.67	129.21	1945.9	10.87	09.83	
DATE: 3-27-79	CS (grams)	009.34	168.86	1955.2	05.43	04.95	
	HT (grams)	004.89	069.20	1712.1	10.14	09.00	
ODOM: 12676	COMP (GPM)	002.29	035.18	0502.4	02.12	01.91	15.7
	HFET (GPM)	000.28	002.08	0367.4	02.91		23.87
MAINT RETEST	FTP CT (grams)	007.52	041.71	2005.5	11.71	10.14	
DATE: 4-10-79	CS (grams)	000.77	001.93	2096.4	06.95	05.98	
	HT (grams)	001.14	005.09	1752.9	11.21	09.64	
ODOM: 12914	COMP (GPM)	000.62	003.04	0527.7	02.45	02.11	16.6
	HFET (GPM)	000.08	000.08	0355.9	03.34		24.89
RETEST	FTP CT (grams)	006.77	041.83	1868.5	10.43	09.33	
DATE: 5-08-79	CS (grams)	000.73	001.04	2109.2	07.00	06.27	
	HT (grams)	001.16	005.79	1732.8	10.78	09.64	
ODOM: 13375	COMP (GPM)	000.57	002.98	0520.0	02.35	02.10	16.8
	HFET (GPM)	000.08	000.08	0363.5	03.28		24.37

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0178.3	00.0	1375.6	0030	00.0
LOW	0334.3	00.0	0659.4	0040	00.0
IDLE	4340.5	04.9	0072.1	0300	04.6
HI	0155.4	00.0	1604.5	0030	00.0
LOW	0112.6	00.0	0563.5	0010	00.0
IDLE	0085.0	00.0	0165.5	0010	00.0
HI	0253.3	00.0	1441.9	0020	00.0
LOW	0152.3	00.0	0626.6	0010	00.0
IDLE	0130.9	00.0	0172.8	0000	00.0

EPA NO. 72109

APPENDIX D

EPA NO.: 72110 MAKE/MODEL: OLDS/VISTA CRUISER ENG:350-4V TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	470	200	455	F	20	25	20	P	45	80	40	P
DEQ CO (%)	1.7	0.5	2.1	F	0.0	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	700	-	700	P	850	-	850	P	800	-	800	P
DEQ QUEUE TIME	10 Minutes				10 Minutes				5 Minutes			
HTS HC (ppm)	880	230	760	-	140	70	70	-	200	80	120	-
HTS CO (%)	1.7	0.0	1.5	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	90	140	90	-	60	100	60	-	110	130	100	-
HTS RPM	700	-	700	-	750	-	800	-	790	-	830	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	46	77	29.85		52	52	30.10		54	50	30.35	
HTS	73	42	29.88		74	29	30.02		82	25	30.30	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	510	(555)	580	610
DWELL	N/A		N/A	N/A
TIMING	+15	(+20)	+14	+13
MECH ADVANCE	24	(29)	23	22
TOTAL ADVANCE	54	(53)	48	47
PROPANE IDLE CK	0		130	190
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	OK		MISSING	MISSING
PROBLEM AREAS:	Ign. Timing @ Idle Mech. Adv. @ 2500 Spark Plug Firing Volt. EGR Air Filters - Condition		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 EGR	Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spark Plug Firing Volt. Cyl. Power Dist. EGR

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Air Filter Adjusted Carburetor Adjusted Idle Speed Adjusted Timing	None
PERFORMED BY:	Service Station	
COST:	$30.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	009.50	071.52	2220.3	07.12	06.12	
DATE: 4-11-79	CS (grams)	008.86	100.51	2171.6	03.85	03.31	
	HT (grams)	005.33	049.00	1884.8	05.55	04.77	
ODOM: 31327	COMP (GPM)	002.13	021.23	0560.1	01.34	01.15	14.8
	HFET (GPM)	000.25	001.35	0429.6	01.30		20.50
MAINT RETEST	FTP CT (grams)	006.80	044.64	2345.0	06.15	05.19	
DATE: 4-18-79	CS (grams)	001.31	000.54	2570.8	03.96	03.34	
	HT (grams)	001.48	006.01	2113.5	05.22	04.41	
ODOM: 31436	COMP (GPM)	000.68	003.09	0637.8	01.28	01.08	13.8
	HFET (GPM)	000.11	000.27	0437.9	01.08		20.22
RETEST	FTP CT (grams)	007.12	042.02	2189.7	05.00	04.43	
DATE: 5-11-79	CS (grams)	002.22	020.86	2333.3	02.92	02.57	
	HT (grams)	001.54	006.07	1934.2	04.53	03.98	
ODOM: 32231	COMP (GPM)	000.82	005.65	0583.7	01.02	00.90	14.9
	HFET (GPM)	000.11	000.13	0407.2	01.07		21.75

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0187.4	00.0	0399.1	0030	00.0
LOW	0413.8	00.0	0184.3	0060	00.0
IDLE	5891.0	03.1	0041.0	0410	03.0
HI	0274.7	00.0	0350.0	0060	00.0
LOW	0372.7	00.0	0087.9	0080	00.0
IDLE	0149.3	00.0	0233.5	0040	00.0
HI	0159.9	00.0	0315.6	0020	00.0
LOW	0251.7	00.0	0177.1	0040	00.0
IDLE	0190.5	00.2	0050.6	0030	00.2

EPA NO. 72110

APPENDIX D

EPA NO.: 72111 MAKE/MODEL: DODGE/ASPEN WGN ENG: 318-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	325	180	490	F	85	25	55	P	240	100	295	F
DEQ CO (%)	2.6	1.9	2.3	F	0.0	0.0	0.0	P	5.1	2.1	3.4	F
DEQ RPM	600	-	600	P	800	-	800	P	700	-	725	P
DEQ QUEUE TIME	10 Minutes				2 Minutes				10 Minutes			
HTS HC (ppm)	760	100	400	-	300	40	340	-	240	60	240	-
HTS CO (%)	0.8	0.0	0.4	-	0.4	0.0	0.5	-	2.2	0.0	2.0	-
HTS NOX (ppm)	70	170	70	-	70	350	90	-	120	320	105	-
HTS RPM	520	-	540	-	650	-	670	-	700	-	680	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	51	67	30.00		54	56	30.30		61	46	30.40	
HTS	63	50	29.94		65	35	30.23		79	54	30.38	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	520	(700)	650	630
DWELL	N/A		N/A	N/A
TIMING	+11	(+08)	+09	+10
MECH ADVANCE	19	(18)	19	19
TOTAL ADVANCE	42	(40)	40	37
PROPANE IDLE CK	60		20	0

DRIVEABILITY			
ENG STARTING	GOOD	GOOD	GOOD
TRANSMISSION	OK	OK	OK
CLUTCH	N/A	N/A	N/A
BRAKES	OK	OK	OK
OVERALL PERF	OK	OK	OK

IDLE LIMITER CAPS: MISSING | MISSING | MISSING

PROBLEM AREAS: Idle Speed | None | None

MAINTENANCE

MAINT TO PASS DEQ:
Replaced PCV
Adjusted Spark Timing Control
Adjusted Carburetor

MAINT PRIOR TO RETEST:
None

PERFORMED BY: Owner
COST: $12.00

OWNER'S DRIVEABILITY EVAL: No Major Problems | Poor Acceleration
OWNER SATISFIED WITH VEH: Yes | Most Of the Time

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	010.49	127.52	2013.7	07.88	07.01	
	CS (grams)	009.62	146.77	2071.4	04.20	03.74	
DATE: 4-12-79	HT (grams)	005.63	056.80	1809.1	07.90	07.16	
ODOM: 27640	COMP (GPM)	002.31	031.20	0529.1	01.61	01.44	15.1
	HFET (GPM)	000.31	002.21	0437.9	02.67		20.05
MAINT RETEST	FTP CT (grams)	007.61	128.10	2119.5	09.33	07.92	
	CS (grams)	007.05	118.56	2120.7	05.25	04.43	
DATE: 4-20-79	HT (grams)	004.03	035.82	1847.7	10.24	08.69	
ODOM: 27673	COMP (GPM)	001.68	025.88	0544.7	02.01	01.71	15.0
	HFET (GPM)	000.23	001.47	0423.0	03.65		20.81
RETEST	FTP CT (grams)	007.27	137.57	2054.5	08.13	07.12	
	CS (grams)	007.00	129.26	2141.8	04.72	04.17	
DATE: 5-12-79	HT (grams)	004.15	051.15	1836.4	08.72	07.65	
ODOM: 28240	COMP (GPM)	001.67	029.01	0542.9	01.76	01.55	14.9
	HFET (GPM)	000.23	001.98	0408.9	02.90		21.48

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0643.2	00.1	0649.8	0060	00.1
LOW	1089.8	00.5	0525.7	0090	00.5
IDLE	3810.3	03.3	0081.6	0240	03.2
HI	0340.4	00.0	1156.0	0050	00.0
LOW	0915.5	00.2	0673.7	0100	00.2
IDLE	3170.1	02.8	0072.1	0230	02.8
HI	0345.1	00.0	1218.7	0020	00.0
LOW	0706.2	00.2	0558.6	0030	00.1
IDLE	3326.8	03.1	0085.5	0200	02.8

EPA NO. 72111

APPENDIX D

EPA NO.: 72112 MAKE/MODEL: FORD/LTD ENG: 351-2V TRANS: AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	445	225	395	F	145	110	140	P	570	160	615	F
DEQ CO (%)	5.5	0.2	3.6	F	1.7	0.1	0.8	P	9.8	0.1	8.7	F
DEQ RPM	1000	-	1050	F	800	-	800	P	850	-	850	P
DEQ QUEUE TIME	20 Minutes				4 Minutes				15 Minutes			
HTS HC (ppm)	610	250	420	-	50	40	20	-	660	80	690	-
HTS CO (%)	6.3	0.2	3.1	-	0.0	0.0	0.0	-	9.2	0.0	9.1	-
HTS NOX (ppm)	120	180	140	-	120	140	120	-	140	140	130	-
HTS RPM	940	-	1120	-	840	-	850	-	980	-	970	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	76	29.89		53	60	30.05		63	44	30.30	
HTS	68	50	29.84		65	44	29.96		80	38	30.22	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	570	(625)	680	650
DWELL	N/A		N/A	N/A
TIMING	+05	(+04)	-12	-11
MECH ADVANCE	16	(15)	02	02
TOTAL ADVANCE	47	(43)	29	29
PROPANE IDLE CK	0		150	0
DRIVEABILITY				
ENG STARTING	GOOD		FALSE	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	OK		OK	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	None		Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Spark Plug Frng Volt.	Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor	Adjusted Carburetor
PERFORMED BY:	Independent Repair Garage	Owner
COST:	$6.00	None
OWNER'S DRIVEABILITY EVAL:	Poor Acceleration	Stalling, Poor Acceleration
OWNER SATISFIED WITH VEH:	Yes	Most of the Time

APPENDIX D

EPA NO.: 72112 MAKE/MODEL : FORD/LTD ENG: 351-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	75	65	40	P	135	125	100	P
DEQ CO (%)	0.1	0.0	0.0	P	0.0	0.0	0.0	P
DEQ RPM	950	-	950	P	1000	-	1000	P
DEQ QUEUE TIME	0 Minutes				5 Minutes			
HTS HC (ppm)	90	40	50	-	50	30	20	-
HTS CO (%)	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	140	160	160	-	180	155	200	-
HTS RPM	900	-	930	-	900	-	950	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	64	53	30.10		62	51	30.25	
HTS	83	56	30.23		74	40	30.16	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	580	(625)	600
DWELL	N/A		N/A
TIMING	+04	(+04)	+04
MECH ADVANCE	16	(15)	16
TOTAL ADVANCE	44	(43)	44
PROPANE IDLE CK	160		200

DRIVEABILITY		
ENG STARTING	GOOD	GOOD
TRANSMISSION	OK	OK
CLUTCH	N/A	N/A
BRAKES	OK	FADE
OVERALL PERF	OK	OK

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: None Fast Idle Speed

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Spark Plugs	None
	Adjusted Carburetor	
	Adjusted Idle Speed	
	Adjusted Timing	
PERFORMED BY:	HTS	
COST:	$5.00	
MANHOURS:	1 Hour	
OWNER'S DRIVEABILITY EVAL:	N/A	No Major Problems
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX D

	TEST	FTP & HFET RESULTS HC	CO	CO_2	NOX	NOXC	MPG	FED THREE-MODE TEST RESULTS TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
INITIAL	FTP CT (grams)	014.12	229.41	2128.2	08.52	07.39		HI	0793.1	00.0	0711.9	0080	00.0
DATE: 4-13-79	CS (grams)	013.86	289.80	2168.7	07.62	06.65		LOW	0670.8	00.0	0368.1	0070	00.1
	HT (grams)	007.74	128.11	1936.8	08.26	07.16		IDLE	4540.6	06.2	0105.5	0320	05.5
ODOM: 35163	COMP (GPM)	003.24	061.53	0558.4	02.13	01.86	13.3						
	HFET (GPM)	000.36	004.01	0432.6	02.19		20.15						
MAINT RETEST	FTP CT (grams)	011.87	247.45	2790.4	07.08	06.11		HI	0216.6	00.0	0313.6	0040	00.0
DATE: 4-18-79	CS (grams)	003.08	056.66	2969.1	03.65	03.12		LOW	0140.1	00.0	0160.7	0040	00.0
	HT (grams)	006.61	138.05	2299.7	03.60	03.11		IDLE	3396.8	02.2	0126.7	0280	02.2
ODOM: 35329	COMP (GPM)	001.59	032.23	0730.6	01.17	01.00	11.3						
	HFET (GPM)	000.31	008.64	0485.7	00.95		17.73						
RETEST	FTP CT (grams)	028.30	486.43	2298.8	05.19	04.63		HI	0265.6	00.0	0342.7	0020	00.0
DATE: 5-18-79	CS (grams)	029.81	552.84	2195.0	02.29	02.04		LOW	1315.1	00.2	0153.4	0140	00.3
	HT (grams)	017.41	330.97	2048.8	03.12	02.78		IDLE	9989.2	10.4	0039.4	0660	09.9
ODOM: 35932	COMP (GPM)	006.92	126.75	0580.2	00.84	00.75	11.1						
	HFET (GPM)	000.91	017.93	0495.9	00.95		16.83						
HTS MAINT RETEST	FTP CT (grams)	011.59	139.19	2282.7	09.02	08.58		HI	0274.7	00.0	0728.5	0030	00.0
DATE: 5-19-79	CS (grams)	002.07	018.08	2520.6	08.90	08.30		LOW	0176.8	00.0	0413.1	0020	00.0
	HT (grams)	003.56	036.75	2035.9	08.18	07.79		IDLE	0115.6	00.0	0764.9	0010	00.0
ODOM: 35972	COMP (GPM)	001.21	013.18	0621.7	02.33	02.19	13.7						
	HFET (GPM)	000.21	001.28	0428.0	02.16		20.59						
RETEST	FTP CT (grams)	009.84	119.17	2318.6	10.17	08.95		HI	0279.2	00.0	0614.0	0020	00.0
DATE: 6-20-79	CS (grams)	001.41	006.13	2493.4	09.96	08.71		LOW	0181.3	00.0	0334.7	0010	00.0
	HT (grams)	004.77	026.95	2004.9	08.02	07.14		IDLE	0260.8	00.0	0162.8	0020	00.0
ODOM: 36520	COMP (GPM)	001.12	009.70	0617.8	02.52	02.22	13.9						
	HFET (GPM)	000.16	000.66	0430.1	02.03		20.55						

EPA NO. 72112

APPENDIX D

EPA NO.: 72113 MAKE/MODEL: PLYMOUTH/VOLARE ENG: 318-2V TRANS: AUTOMATIC

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	115	40	140	P	50	30	75	P	55	65	30	P
DEQ CO (%)	2.5	0.3	2.3	F	0.1	0.1	0.1	P	0.1	0.9	0.0	P
DEQ RPM	800	-	800	P	800	-	800	P	800	-	800	P
DEQ QUEUE TIME	20 Minutes				20 Minutes				10 Minutes			
HTS HC (ppm)	160	50	150	-	80	30	60	-	40	20	30	-
HTS CO (%)	2.8	0.2	2.3	-	0.2	0.1	0.0	-	0.1	0.0	0.0	-
HTS NOX (ppm)	120	200	120	-	80	180	80	-	80	250	80	-
HTS RPM	820	-	830	-	750	-	740	-	800	-	790	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	53	76	29.90		56	54	30.35		68	45	30.25	
HTS	65	61	29.78		68	42	30.24		87	39	30.21	

DIAGNOSTIC CHECKS		(SPECS)		
IDLE SPEED	730	(700)	700	800
DWELL	N/A		N/A	N/A
TIMING	+09	(+08)	+09	+09
MECH ADVANCE	15	(18)	15	14
TOTAL ADVANCE	35	(40)	41	38
PROPANE IDLE CK	30		130	70
DRIVEABILITY				
ENG STARTING	GOOD		GOOD	GOOD
TRANSMISSION	OK		OK	OK
CLUTCH	N/A		N/A	N/A
BRAKES	OK		OK	OK
OVERALL PERF	STUMBLE		OK	OK
IDLE LIMITER CAPS:	MISSING		MISSING	MISSING
PROBLEM AREAS:	Mech. Adv. @ 2500 Total Adv. @ 2500		Mech. Adv. @ 2500 Spark Plug Frng Volt. Air Filters	Idle Speed Mech. Adv. @ 2500 Air Filters

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Carburetor Adjusted Idle Speed	None
PERFORMED BY:	Service Station	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	Stalling	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

	TEST	HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	007.74	114.53	2186.5	09.25	08.07	
	CS (grams)	006.55	106.75	2300.2	05.48	04.75	
DATE: 4-13-79	HT (grams)	004.35	055.60	2026.4	08.41	07.29	
ODOM: 57349	COMP (GPM)	001.65	025.03	0586.1	01.90	01.65	14.1
	HFET (GPM)	000.25	002.09	0441.8	03.35		19.89
MAINT RETEST	FTP CT (grams)	009.85	111.42	2120.0	08.49	07.29	
	CS (grams)	001.35	005.40	2418.4	06.86	05.85	
DATE: 4-21-79	HT (grams)	002.74	019.93	1978.8	07.90	06.74	
ODOM: 57713	COMP (GPM)	000.95	008.62	0594.4	02.00	01.71	14.5
	HFET (GPM)	000.16	000.29	0447.1	03.00		19.79
RETEST	FTP CT (grams)	007.77	095.33	2024.5	08.52	08.39	
	CS (grams)	001.49	007.63	2324.2	05.58	05.50	
DATE: 5-25-79	HT (grams)	003.46	030.77	1960.4	07.68	07.86	
ODOM: 60200	COMP (GPM)	000.91	008.82	0575.0	01.82	01.81	15.0
	HFET (GPM)	000.21	000.43	0437.2	03.16		20.22

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0211.9	00.0	0559.1	0030	00.0
LOW	0557.6	00.3	0384.8	0030	00.0
IDLE	1242.8	00.9	0079.2	0040	00.8
HI	0412.4	00.0	0415.5	0030	00.0
LOW	0293.1	00.0	0733.4	0030	00.0
IDLE	0216.6	00.0	0201.9	0020	00.0
HI	0276.1	00.0	0690.4	0020	00.0
LOW	0218.0	00.0	1036.6	0020	00.0
IDLE	0138.5	00.0	0136.5	0020	00.0

EPA NO. 72113

EPA NO.: 72114 MAKE/MODEL: VOLVO/242 ENG: 130-FI TRANS: MANUAL

IDLE TEST RESULTS	INITIAL 1ST	INITIAL 2500	INITIAL 2ND	INITIAL S	MAINT RETEST 1ST	MAINT RETEST 2500	MAINT RETEST 2ND	MAINT RETEST S	RETEST 1ST	RETEST 2500	RETEST 2ND	RETEST S
DEQ HC (ppm)	145	105	155	P	160	130	220	P	190	60	185	P
DEQ CO (%)	4.0	2.7	4.0	F	0.0	3.3	0.0	P	0.0	1.0	0.0	P
DEQ RPM	1000	-	1000	P	700	-	730	P	700	-	700	P
DEQ QUEUE TIME	7 Minutes				15 Minutes				9 Minutes			
HTS HC (ppm)	220	140	210	-	300	30	220	-	200	50	190	-
HTS CO (%)	5.4	3.6	5.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	120	180	120	-	45	150	35	-	40	210	50	-
HTS RPM	980	-	990	-	700	-	700	-	730	-	720	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	52	60	30.07		71	37	29.95		67	34	30.20	
HTS	68	40	29.96		88	35	29.90		76	31	30.12	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	920	(900)	670	680	
DWELL	N/A		N/A	N/A	
TIMING	+11	(+12)	+11	+09	
MECH ADVANCE	25	(29)	26	28	
TOTAL ADVANCE	36	(37)	35	33	
PROPANE IDLE CK	0		90	210	
DRIVEABILITY					
ENG STARTING	GOOD		GOOD	GOOD	
TRANSMISSION	OK		OK	OK	
CLUTCH	OK		OK	OK	
BRAKES	OK		OK	OK	
OVERALL PERF	OK		OK	OK	
IDLE LIMITER CAPS:	FI		FI	FI	
PROBLEM AREAS:	None		Idle Speed Spark Plug Frng Volt.	Idle Speed Spk. Plug Frng Volt.	

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Adjusted Intake System Adjusted Idle Speed	None
PERFORMED BY:	Independent Repair Garage	
COST:	$10.00	
OWNER'S DRIVEABILITY EVAL:	Rough Idle	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.85	192.30	1517.1	10.28	08.79	
DATE: 4-18-79	CS (grams)	011.62	253.02	1662.4	06.38	05.46	
ODOM: 23487	HT (grams)	008.77	166.08	1332.1	08.94	07.60	
	COMP (GPM)	002.90	057.38	0409.9	02.12	01.31	17.4
	HFET (GPM)	001.47	025.95	0281.8	02.29		27.10
MAINT RETEST	FTP CT (grams)	005.59	065.36	1638.3	10.30	09.02	
DATE: 5-16-79	CS (grams)	001.56	004.51	1951.1	07.62	06.68	
ODOM: 23905	HT (grams)	003.39	031.84	1469.3	09.49	08.31	
	COMP (GPM)	000.79	004.77	0465.7	02.33	02.04	18.5
	HFET (GPM)	000.38	003.56	0309.3	02.67		28.06
RETEST	FTP CT (grams)	005.36	058.90	1554.3	11.58	09.93	
DATE: 6-14-79	CS (grams)	001.55	005.57	1861.7	07.82	06.71	
ODOM: 24312	HT (grams)	002.67	020.31	1367.3	10.09	08.65	
	COMP (GPM)	000.72	005.66	0441.2	02.47	02.12	19.6
	HFET (GPM)	000.38	003.63	0303.0	02.71		28.61

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	2414.4	02.0	1077.2	0110	02.0
LOW	2310.4	02.2	0458.8	0120	02.1
IDLE	3090.1	04.0	0048.2	0140	03.8
HI	0970.5	00.3	1098.7	0070	00.3
LOW	0208.8	00.0	0623.6	0020	00.0
IDLE	1031.7	00.0	0076.8	0120	00.0
HI	0794.9	00.2	1145.9	0040	00.3
LOW	0192.1	00.0	0687.2	0020	00.0
IDLE	0834.7	00.0	0058.8	0100	00.0

EPA NO. 72114

APPENDIX D

EPA NO.: 72115 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	250	220	500	F	15	20	20	P	15	40	50	P
DEQ CO (%)	5.1	0.5	5.3	F	0.0	0.0	0.0	P	0.0	0.5	0.0	P
DEQ RPM	950	-	1000	P	1050	-	1100	P	1700	-	1700	F
DEQ QUEUE TIME	14 Minutes				10 Minutes				20 Minutes			
HTS HC (ppm)	480	140	550	-	90	30	60	-	80	30	50	-
HTS CO (%)	4.9	0.8	5.9	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
HTS NOX (ppm)	80	140	100	-	70	140	80	-	60	140	80	-
HTS RPM	800	-	790	-	1040	-	1060	-	890	-	950	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	51	58	30.35		56	56	30.25		64	42	30.25	
HTS	67	33	30.25		73	39	30.28		75	40	30.19	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	570		(555)		620				610			
DWELL	N/A				N/A				N/A			
TIMING	+05		(+08)		+01				+01			
MECH ADVANCE	14		(20)		12				10			
TOTAL ADVANCE	40		(44)		34				35			
PROPANE IDLE CK	0				300				300			
DRIVEABILITY												
ENG STARTING	GOOD				GOOD				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	OK				OK				OK			
OVERALL PERF	OK				OK				SURGES			
IDLE LIMITER CAPS:	OK				MISSING				MISSING			
PROBLEM AREAS:	Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Cyl. Power Dist.				Idle Speed Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500				Fast Idle Speed Ign. Timing @ Idle Mech. Adv. @ 2500 Total Adv. @ 2500 Automatic Choke			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs Repaired Carburetor Replaced Air Filter Replaced PCV System Replaced Fuel Filter Replaced Carburetor Float	None
PERFORMED BY:	Auto Dealer	
COST:	$145.00	
OWNER'S DRIVEABILITY EVAL:	Stalling, Poor Accel. and Dieseling	Rough Idle, Poor Accel and Dieseling
OWNER SATISFIED WITH VEH:	Most of the Time	Not Satisfied

EPA NO.: 72115 MAKE/MODEL: CHEV/NOVA ENG: 250-1V TRANS: AUTOMATIC

IDLE TEST RESULTS	HTS MAINT RETEST 1ST	2500	2ND	S	RETEST 1ST	2500	2ND	S
DEQ HC (ppm)	35	25	30	P	280	145	340	F
DEQ CO (%)	0.0	0.3	0.0	P	4.4	1.0	2.1	F
DEQ RPM	1050	-	1050	P	1025	-	1025	P
DEQ QUEUE TIME	5 Minutes				35 Minutes			
HTS HC (ppm)	60	20	50	-	280	40	300	-
HTS CO (%)	0.0	0.0	0.0	-	0.1	0.0	0.3	-
HTS NOX (ppm)	80	150	80	-	50	140	50	-
HTS RPM	870	-	860	-	830	-	850	-
	°F	RH	BARO		°F	RH	BARO	
DEQ	70	39	30.25		69	51	30.10	
HTS	82	36	30.20		78	43	30.03	

DIAGNOSTIC CHECKS		(SPECS)	
IDLE SPEED	570	(555)	560
DWELL	N/A		N/A
TIMING	+07	(+08)	+08
MECH ADVANCE	18	(20)	19
TOTAL ADVANCE	42	(44)	41
PROPANE IDLE CK	80		80
DRIVEABILITY			
ENG STARTING	GOOD		GOOD
TRANSMISSION	OK		OK
CLUTCH	N/A		N/A
BRAKES	OK		OK
OVERALL PERF	OK		SURGES,STRETCHY

IDLE LIMITER CAPS: MISSING MISSING

PROBLEM AREAS: Cyl. Power Dist. None

MAINTENANCE	MAINT PRIOR TO RETEST	MAINT PRIOR TO RETEST
	Adjusted Spark Plugs	None
	Adjusted Spark Timing Devices	
	Adjusted Carburetor	
	Adjusted Choke	
	Adjusted Idle Speed	
	Adjusted Timing	
PERFORMED BY:	HTS	
COST:	None	
MANHOURS:	2 Hours	
OWNER'S DRIVEABILITY EVAL:	N/A	Dieseling
OWNER SATISFIED WITH VEH:	N/A	Yes

APPENDIX D

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	014.54	322.86	1595.4	07.08	06.05	
DATE: 4-20-79	CS (grams)	013.40	254.64	1594.7	02.42	02.07	
	HT (grams)	009.83	144.21	1399.7	05.25	04.53	
ODOM: 41999	COMP (GPM)	003.37	063.42	0410.5	01.13	00.97	17.0
	HFET (GPM)	000.41	006.62	0323.5	01.53		26.46
MAINT RETEST	FTP CT (grams)	005.27	075.62	1783.5	07.06	06.70	
DATE: 5-10-79	CS (grams)	000.52	000.13	1915.5	03.66	03.41	
	HT (grams)	002.04	004.19	1559.4	05.16	04.49	
ODOM: 42758	COMP (GPM)	000.53	004.67	0476.2	01.29	01.18	18.3
	HFET (GPM)	000.05	000.03	0321.2	01.14		27.59
RETEST	FTP CT (grams)	036.46	931.52	1379.2	01.75	01.52	
DATE: 6-07-79	CS (grams)	027.52	623.84	2123.6	05.45	04.74	
	HT (grams)	001.26	010.90	1738.2	06.62	05.80	
ODOM: 43771	COMP (GPM)	005.86	137.41	0494.3	01.33	01.16	12.2
	HFET (GPM)	000.08	000.27	0335.7	01.66		26.36
HTS MAINT RETEST	FTP CT (grams)	008.70	019.30	1662.2	10.27	09.30	
DATE: 6-09-79	CS (grams)	003.28	018.05	1792.2	04.54	04.11	
	HT (grams)	001.92	006.26	1516.0	07.73	07.04	
ODOM: 43822	COMP (GPM)	001.08	003.99	0449.5	01.78	01.62	19.3
	HFET (GPM)	000.14	000.51	0316.3	01.89		27.93
RETEST	FTP CT (grams)	006.11	113.66	1769.1	09.91	09.24	
DATE: 7-06-79	CS (grams)	004.81	047.38	1811.7	03.54	03.27	
	HT (grams)	002.87	017.10	1538.2	06.79	06.29	
ODOM: 45443	COMP (GPM)	001.21	014.13	0459.9	01.56	01.44	18.2
	HFET (GPM)	000.14	000.62	0327.6	01.47		26.96

FTP & HFET RESULTS

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0366.5	00.1	0328.1	0020	00.1
LOW	0458.3	00.0	0172.8	0030	00.0
IDLE	5747.7	07.0	0029.7	0380	06.8
HI	0098.7	00.0	0375.3	0020	00.0
LOW	0107.9	00.0	0146.1	0020	00.0
IDLE	0065.1	00.0	0201.0	0020	00.0
HI	0143.2	00.0	0726.1	0000	00.0
LOW	0143.2	00.0	0168.0	0000	00.0
IDLE	0091.1	00.0	0510.1	0000	00.0
HI	0262.5	00.0	0794.0	0020	00.0
LOW	0262.5	00.0	0447.0	0030	00.0
IDLE	2416.7	00.5	0068.5	0190	00.9
HI	0130.4	00.0	0536.8	0020	00.0
LOW	0219.1	00.0	0145.2	0020	00.0
IDLE	1773.0	01.2	0056.8	0160	01.1

APPENDIX D

EPA NO.: 72116 MAKE/MODEL: FORD/GRANADA ENG: 250-1 TRANS:AUTOMATIC

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	455	165	545	F	85	105	190	P	70	35	70	P
DEQ CO (%)	5.4	1.6	6.0	F	0.0	1.5	0.1	P	0.0	0.0	0.0	P
DEQ RPM	950	-	1000	P	800	-	800	P	1000	-	1100	P
DEQ QUEUE TIME	10 Minutes				14 Minutes				5 Minutes			
HTS HC (ppm)	530	300	570	-	80	140	30	-	130	80	80	-
HTS CO (%)	4.9	1.5	5.1	-	0.0	0.1	0.0	-	0.0	0.2	0.0	-
HTS NOX (ppm)	90	220	90	-	100	140	120	-	120	400	120	-
HTS RPM	920	-	960	-	890	-	920	-	980	-	1020	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	56	50	30.45		64	48	30.00		64	42	30.20	
HTS	71	33	30.24		79	40	29.93		72	34	30.15	
DIAGNOSTIC CHECKS			(SPECS)									
IDLE SPEED	590		(600)		620				630			
DWELL	N/A				N/A				N/A			
TIMING	+06		(+06)		+07				+06			
MECH ADVANCE	20		(14)		15				17			
TOTAL ADVANCE	31		(34)		31				33			
PROPANE IDLE CK	0				140				160			
DRIVEABILITY												
ENG STARTING	GOOD				GOOD				GOOD			
TRANSMISSION	OK				OK				OK			
CLUTCH	N/A				N/A				N/A			
BRAKES	POOR				OK				OK			
OVERALL PERF	OK				OK				OK			
IDLE LIMITER CAPS:	MISSING				MISSING				MISSING			
PROBLEM AREAS:	Mech. Adv. @ 2500 EGR Func. Check				EGR Func. Check				EGR Func. Check			

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Spark Plugs	Replaced Engine Oil
	Replaced Distributor Cap & Rotor	Replaced Oil Filter
	Replaced Air Filter	
	Replaced Fuel Filter	
PERFORMED BY:	Independent Repair Garage	Service Station
COST:	$57.00	$30.00
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	011.24	184.29	1872.9	14.17	12.66	
DATE: 4-24-79	CS (grams)	010.66	160.11	1641.4	15.42	13.68	
ODOM: 28239	HT (grams)	006.68	083.21	1648.2	13.36	11.86	
	COMP (GPM)	002.57	038.24	0451.5	03.88	03.45	17.1
	HFET (GPM)	000.34	004.68	0393.0	01.41		22.09
MAINT RETEST	FTP CT (grams)	005.86	117.55	1863.4	14.86	13.29	
DATE: 5-16-79	CS (grams)	001.02	007.93	1860.5	18.83	16.83	
ODOM: 29207	HT (grams)	001.36	008.43	1662.0	15.62	13.97	
	COMP (GPM)	000.58	008.44	0481.2	04.55	04.07	17.9
	HFET (GPM)	000.10	000.52	0382.9	01.93		23.09
RETEST	FTP CT (grams)	006.33	109.76	1795.7	12.09	10.61	
DATE: 6-14-79	CS (grams)	001.58	021.00	1837.3	14.93	13.20	
ODOM: 30452	HT (grams)	002.38	027.38	1579.7	12.61	11.15	
	COMP (GPM)	000.75	011.17	0468.0	03.64	03.22	18.2
	HFET (GPM)	000.15	002.37	0376.4	01.38		23.30

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	0303.7	00.0	0339.5	0080	00.0
LOW	0221.1	00.1	0260.7	0070	00.0
IDLE	5871.0	04.0	0074.5	0400	03.6
HI	0176.8	00.0	0442.2	0020	00.0
LOW	0103.4	00.0	2436.8	0030	00.0
IDLE	0115.6	00.0	0532.0	0020	00.0
HI	0161.5	00.0	0364.5	0020	00.0
LOW	0088.1	00.0	2364.0	0000	00.0
IDLE	0329.8	00.2	0282.0	0040	00.2

EPA NO. 72116

APPENDIX D

EPA NO.: 72117 MAKE/MODEL: VOLKSWAGON/SCIROCCO ENG: 97-FI TRANS: MANUAL

	INITIAL				MAINT RETEST				RETEST			
IDLE TEST RESULTS	1ST	2500	2ND	S	1ST	2500	2ND	S	1ST	2500	2ND	S
DEQ HC (ppm)	165	105	195	P	45	40	45	P	50	45	75	P
DEQ CO (%)	4.7	1.7	4.7	F	1.2	0.2	1.2	P	1.7	0.7	1.8	P
DEQ RPM	800	-	800	P	1000	-	1000	P	1000	-	1000	P
DEQ QUEUE TIME	5 Minutes				5 Minutes				10 Minutes			
HTS HC (ppm)	170	90	190	-	70	40	60	-	70	20	60	-
HTS CO (%)	4.4	0.9	4.4	-	0.5	0.1	0.6	-	0.9	0.2	0.8	-
HTS NOX (ppm)	80	160	70	-	100	150	110	-	130	160	120	-
HTS RPM	750	-	730	-	910	-	970	-	870	-	880	-
	°F	RH	BARO		°F	RH	BARO		°F	RH	BARO	
DEQ	59	70	29.90		58	52	30.00		63	55	30.20	
HTS	74	61	29.88		70	44	29.94		72	45	30.17	

DIAGNOSTIC CHECKS		(SPECS)			
IDLE SPEED	740	(925)	830		850
DWELL	51	(47)	51		51
TIMING	-05	(-03)	-03		-03
MECH ADVANCE	12	(24)	26		23
TOTAL ADVANCE	27	(30)	32		30
PROPANE IDLE CK	0		220		120
DRIVEABILITY					
ENG STARTING	GOOD		GOOD		GOOD
TRANSMISSION	OK		OK		SHIFTS HARD
CLUTCH	OK		OK		OK
BRAKES	OK		OK		OK
OVERALL PERF	OK		OK		OK
IDLE LIMITER CAPS:	FI		FI		FI
PROBLEM AREAS:	Idle Speed Dwell Mech. Adv. @ 2500		Dwell		Dwell

MAINTENANCE	MAINT TO PASS DEQ	MAINT PRIOR TO RETEST
	Replaced Fuel Filter Adjusted Intake System Adjusted Idle Speed	None
PERFORMED BY:	Auto Dealer	
COST:	$25.00	
OWNER'S DRIVEABILITY EVAL:	No Major Problems	No Major Problems
OWNER SATISFIED WITH VEH:	Yes	Yes

APPENDIX D

FTP & HFET RESULTS

TEST		HC	CO	CO_2	NOX	NOXC	MPG
INITIAL	FTP CT (grams)	012.61	425.74	0857.7	01.57	01.42	
DATE: 5-07-79	CS (grams)	007.64	212.58	1212.8	03.18	02.89	
ODOM: 23929	HT (grams)	004.84	058.80	0966.0	05.98	05.46	
	COMP (GPM)	002.11	057.22	0284.3	00.97	00.88	23.3
	HFET (GPM)	000.83	006.69	0217.6	02.86		38.44
MAINT RETEST	FTP CT (grams)	009.65	349.52	0931.8	02.17	01.94	
DATE: 5-09-79	CS (grams)	004.11	069.65	1405.0	04.11	03.67	
ODOM: 23971	HT (grams)	004.06	013.95	1020.8	07.11	06.25	
	COMP (GPM)	001.41	030.39	0318.3	01.21	01.08	23.9
	HFET (GPM)	000.51	002.01	0213.0	02.55		40.73
RETEST	FTP CT (grams)	010.72	393.44	0936.2	02.09	01.86	
DATE: 6-08-79	CS (grams)	005.26	097.36	1500.9	04.60	04.11	
ODOM: 24815	HT (grams)	004.19	014.87	1103.7	08.77	07.91	
	COMP (GPM)	001.63	036.67	0337.7	01.40	01.26	22.1
	HFET (GPM)	000.46	001.99	0214.5	02.74		40.47

FED THREE-MODE TEST RESULTS

TEST	HC-L	CO-L	NOX-L	HC-G	CO-G
HI	1808.7	00.5	2170.6	0100	00.6
LOW	1940.2	00.9	0528.1	0110	01.0
IDLE	2423.6	03.8	0079.2	0110	03.8
HI	1083.7	00.1	2077.5	0050	00.2
LOW	1099.0	00.1	0528.1	0060	00.1
IDLE	0588.2	00.4	0103.1	0030	00.4
HI	1146.8	00.2	2080.1	0060	00.2
LOW	1223.3	00.2	0500.4	0060	00.2
IDLE	0807.2	00.7	0119.4	0040	00.7

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